

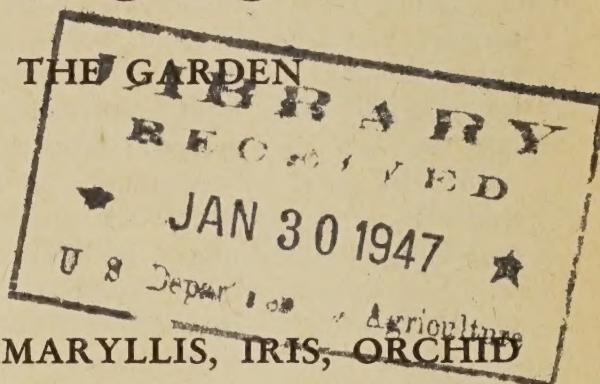
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BULBS FOR POTS

AND SPRING PLANTING IN THE GARDEN



A CATALOG OF THE BULBS OF THE AMARYLLIS, IRIS, ORCHID
AND OTHER PLANT FAMILIES

Special Articles: How To Grow Orchids; How To Grow Amaryllis;
Culture Directions For All Bulbs Listed; Discussions of Soils, Fertilizers
And Pests.

PERSONAL LETTER To You On "The Art and Science of Living."

SPRING 1947

CECIL HOUDYSHEL

1412 THIRD ST.

LA VERNE, CALIFORNIA

If not interested Please Return to
Postmaster, marked "Refused."

Sec. 562, P. L. & R.

THE ART AND THE SCIENCE OF LIVING

A PERSONAL LETTER — TO YOU

Dear Floral Friends,

Since I have 30,000 pen pals, it is obvious that I cannot write individual letters to each of you. To do so, I would need to write 30 letters per day for 1000 days; three years, six days a week and 13 days vacation each year. I don't believe I could write 30 letters a day if as long as this one may be, as I write slowly. But suppose that I could and that one person could type that many. The typing would cost about \$7,000.00 or more. In good office practice, it is considered that letters cost 50c each in labor and material, so it might cost me much more than \$7000 for the typing. The postage would cost \$900.00. Stationery, \$300.00 or more.

My disposition, on account of the prolonged, intense effort and nervous strain, would become so bad that no one would work for me. My wife would divorce me, my friends and relatives desert me. Heaven only knows what else, but this would be enough.

I will continue therefore to write you this letter twice a year as an introduction to our Spring and Fall Catalogs, and will usually talk to you about flowers and anything or everything that pertains to the Art and Science of Living. The discussions are often rambling because I am frequently interrupted. But they will be chatty, like a conversation between friends.

I believe this reductio ad absurdum reasoning will explain to you why you do not always receive replies to your letters. This catalog is written to furnish the information that is usually asked for. The expressions of good will; of satisfaction for the results obtained by planting our bulbs, for the advice given in the catalogs and for many other generous and kind remarks made in your letters to me are always very much appreciated. Sometimes an especially gratifying letter comes to me at a time when the uplift of such a letter is most helpful, because when you are pleased, I am pleased. When you have had a higher degree of success with your flowers, I am sharing your happiness.

But now and then I receive a caustic letter. I am accused of being "high hat" when I frankly admit I cannot answer all letters. Invited to come down out of the ether. Bulbs are sometimes accused of being the cause of failures since the grower could not have made an error or neglected any requirement of their culture.

It is difficult to admit that one has been at fault. It is much easier to blame the bulbs. This human fault extends into many other cases which we try judicially, in foro interno. The decision, "I was right, the other fellow was wrong." It is more comfortable to blame the bulbs, the plants, seeds or setting of eggs for our own failure than to blame ourselves. It is just as reasonable to blame the rock you stub your toes against or the ingredients of a cake recipe if you fail. Poor stock can be the cause of failure but incorrect handling is a 1000 to 1 cause.

Only the wise are able to say, "I don't know," or "I failed." When we admit that, we have learned.

Happiness is universally desired but few know how to attain it. They often mistake thrills and excitement for happiness. Others make their own happiness the purpose of all their actions. Vain quest. We gain most of our happiness thru service to others.

Success for our undertakings is always expected but all too often, not realized. It is said that 90% of all business enterprises end in failure. The greatest enterprise of all is "living." Within this generalized term are included such components as Marriage, Raising Families, Occupation, Affiliations with Church, Lodges or Friends. Success in all these departments of life, depends upon our approach. One must not ask what he can get out of marriage but what he can put into marriage; not what he can get from his church, his lodge or his friends but what he can give them. One must give first before getting.

Life is an experiment. We learn by trial, failure, success, observation. We are lucky when we learn by observation and thus escape a few personal failures, or when we weigh the advice of others. It is only children who do not do that. Those who teach us

need not be as perfect as Jesus nor as much a failure as Judas. By observing all we learn from all.

Flowers contribute much to our happiness. We like to believe that a love for flowers indicates high character. Perhaps it does but it is not conclusive, for many a rascal loves them so much that he will gain them by stealing or fraud. But his love is only a sensual one. They are a possession. They glorify him. He wants to keep them, not give them. I will tell you this. In order to enjoy flowers, you must give them away.

The art of living is the highest of the fine arts, but it is not reserved to genius. Nor is the science of living reserved for the Masters of Science and the Doctors of Philosophy. They are not always wise. Often one who can write no letters after his name is much wiser and those who learn the science of living have become wise.

First of all, it is important that we keep as physically fit as is possible. Can you imagine that any one would carry around a weight of 50 lbs. while performing his daily tasks? But many do and every ounce of it, first entered by way of the mouth. If overweight, the skeletal muscles may be able to carry it but the heart cannot do it for as long a time as it might pump the oxygen carrying blood to a body of normal weight. A strong horse or a strong heart will pull a light load for many more hours than a heavy load. I wonder if the brief pleasures of eating too much will compensate for that final spasm and agony of pain that often seizes the victim of a heart attack before sudden death.

We usually know or can learn what is good for us and what is bad. I do not need to tell you. Nor can anyone help those who suffer the delusion that because the Doctor tells them it will not hurt them to smoke or drink, that this is true. My opinion is that they know better. The many magazines devoted to gracious living usually promote sensuous living in reality. The concoctions offered as recipes are unnatural, the mode of life suggested is not simple. We naturally crave a lovely home and surroundings of books, flowers, music and friends. But with all that we can live simply.

I am wishing for you all full garden success, health, happiness and prosperity in 1947.

Sincerely, Cecil Houdyshel.



TERMS AND INSTRUCTIONS FOR ORDERING

California Customers must add 2½% Sales Tax.

Remit by check or M. O. If stamps are sent, send \$1.08 for \$1.00. We do not carry accounts.

C. O. D. We do not ship bulbs C. O. D.

Postage prepaid on orders of \$1.00 or over. Under \$1.00, add 10c extra.

Insurance. Send 3c extra on orders up to \$5.00. 10c for orders \$5.00 to \$25.00. We accept no responsibility if you do not insure.

Special Handling costs 15c. If you send 15c extra, and insurance, your parcel post shipment will receive the same treatment as first class mail. It will arrive more promptly and safely. All valuable shipments should be protected by Insurance and Special Handling, total 18c for \$5.00 and 23c up to \$25.00 values.

Express is safer for large and valuable shipments, especially in cold weather in north. It is more expensive than mail and we ship that way, only f. o. b. La Verne. We will add extra value to equal postage.

Prices given are usually for one bulb. A dozen costs 10 times the price of one. 6 are sold at doz. rate. Unless otherwise stated, 100 cost 7 times the cost of one or 7 times the cost of one doz. 50 are sold for the price of 4 doz., not at 100 rate.

Wholesale. We will quote to dealers on their want list. At present, we are unable to dig enough bulbs to publish a wholesale list or to give any discounts from this list to anyone.

Foreign orders. Our prices include prepaid delivery only as far as our 8th postal zone. We can usually prepay to Mexico or Canada. It is best to include some extra on export orders. If too much, we add extra bulbs. The 100 rate prices do not apply on export orders unless customer pays transportation.

Canadian Customers. The \$5.00 limit on importations has been removed. Apply to Sec. of Destructive Insect and Pest Act, Advisory Board, Ottawa, Ont. (or ask your P. M.) for Permit and mailing label and send these with your order.

Errors. We make them but correct them, if notified at once.

Partial Shipments. If everything is not included in first shipment a slip so stating is enclosed. When final shipment is made, another slip so states. Check them with order and if short, notify us at once.

Guarantee. Our bulbs are true to name and healthy, but we do not guarantee results since we do not control the conditions under which they are grown. If, in your opinion, our bulbs are not up to our specifications, notify us at once. If you are not then satisfied with our explanation, they may be returned. No refund will be made if planted unless circumstances indicate bulbs were at fault.

Culture directions are in this catalog, hence none are sent with bulbs.

Catalogs. Spring Catalog, Jan. 15. Fall Catalog, Aug. 15. Names are dropped from our mailing list if you do not buy for two years. If not interested, please ask P. M. to return this at our expense, thus saving paper and labor.

Correspondence. We enjoy your friendly letters. I answer them twice a year in our Introductory Letter. It is a fact that I work longer hours and for less pay than the coal miners and am still unable to answer all letters requiring it. Two assistants help but we never catch up. Some letters accuse me of not liking to write. I do, but I have over 30,000 pen pals. Read entire catalog before asking questions.

Identifying Bulbs. We usually can. Send flower, foliage and if possible, a bulb. Give all facts known. Enclose self addressed post card and attach your letter to outside of package. We do not attempt to identify horticultural varieties of Gladiolus, Iris, etc.

Time of Delivery. All bulbs are delivered within range of correct planting dates.

GENERAL CULTURE DIRECTIONS

Rich sandy loam is the best soil. Only a few, like Bearded Iris, prefer heavy soil. A very few, like Gloriosas, must have sandy soil.

All soils require the addition of much humus. Compost all garbage, weeds, leaves, cut branches and manures. When rotted, add to soil and thoroly mix.

Fertilizers. We recommend only animal manures and compost. Fresh manure can be used on a few plants, that are growing vigorously, as a very light mulch, but after flowering. Do not fertilize a plant in dry soil, or use any fertilizer, unless thoroly rotted in a compost heap, in the soil before planting bulbs, seed, or plants.

After blooming, many neglect their bulbs. As a result the bulbs do not flower the following year. For success one must continue to give good culture and encourage luxuriant growth until yellowing foliage indicates the bulb has completed its annual growth and is becoming dormant.

Depth of planting and distance apart often cause too much concern. Bulbs usually have sufficient adaptability to do well under widely varying conditions. If left in one place a few years, most bulbs adjust themselves to their preferred depth. Approximately, bulbs should be about 2 or 3 times their diameter apart unless their habit of growth is spreading,—like Ranunculus. In such cases plant farther apart. Small bulbs, like Ranunculus, should be about 2" or 3" deep, depending on size. Bulbs as large as Daffodils may be 4" to 6" deep. Bulbs with a heavy erect stem need deep planting in order to remain erect. Plant deeper in light sandy soils than in heavy soils and in cold climates to protect from frost.

Pests. Snails and slugs are most serious garden pests. We have found the very best control is furnished by **Bug-geta Pellets**. They also kill cut worms and grasshoppers. Because so easy to apply, they are more economical than powders which require you to stoop in placing them. Buy the economical way, in 25 lb. bags. Price \$3.75, f. o. b. La Verne. Ants are a pest in the house and in the garden they distribute **aphis** and **mealy bug** and tend them like domestic animals. Best control is **Ant-B-Gon**. Set of 4 dispensers, filled, 60c, f. o. b. La Verne. Best to send by mail. Ask your P. M. the amount of postage required on 2 lbs. from La Verne. Ant-B-Gon liquid for refilling, 4 oz. 25c post paid. **Mealy bugs** are a serious pest to garden and house plants. They are everywhere and must be controlled. First destroy ants. Wash them off of house plants and use a spray of water from hose to dislodge from garden plants. You will still need to spray with **Garden Volc**. Use any type of sprayer and a small fly sprayer will do for house plants. Price, Garden Volc, 4 oz. for 30c postpaid. Use Garden Volc also against **Scale Insects**. These are the remedies we use and have found best.

Garden Success requires aggressive effort on your part. One can always blame the bulbs for failure, but it does not advance one's knowledge of the art and science of gardening.

ACID AND ALKALINE SOILS

Most plants thrive in mildly acid, neutral or mildly alkaline soils. But others do not have so wide a range of tolerance. Rhododendrons, Zantedeschias, Orchids and others require a more or less acid soil. Bearded Iris grow best in a neutral to alkaline soil. The acid-alkali balance depends upon the concentration of hydrogen ions in a saturated solution. This is expressed in pH units. pH 7 is neutral. Below that the acidity increases; above it the alkalinity increases. For the mathematical, I will explain that the numeral is the negative logarithm denoting the concentration of hydrogen ions in gram atoms per liter.

Soiltex Outfit. This small kit will enable you to determine the pH of your soil. No chemical knowledge is needed. Full directions for its use are included. Price \$1.00.

If your soil is too alkaline for the plants you wish to grow, the remedy is to add humus. Imported peat is the most acid. Some American peat is acid but some of it is actually alkaline due to minerals contained. Oak leaf mould is more acid than other leaf moulds.

Canadian Peat. We can furnish this to near-by customers for \$5.00 per bale, or 10 lbs. for \$1.00 f. o. b. La Verne. Buy locally if you can. If ordered, be sure to ask your Express Agent the rate on 100 lbs. It may be nearly twice the cost of the peat, for a long distance.

Rootone induces quick rooting of bulbs, cuttings and the sprouting of seed. As the result of its action bulbs make a more vigorous root system and grow larger and produce greater increase. Slightly moisten the base of the bulb and cover with a thin film of Rootone. Dip end of cuttings into the powder. Tumble seeds in a jar or seed envelope with the powder. Roll the coated seed out and save remaining powder. Price, one-half ounce, a good supply, 50c postpaid. 1-lb. can, for very extensive planting, \$5.00.

Vitamin B-1 is a useful stimulant for plants, we believe. We have used it in transplanting bulbs and other plants with apparent usefulness. Price per bottle of 100 tablets, 75c.

Directions for use, applying only to our own tablets. In transplanting bulbs or any plants, loose roots, dissolve 5 tablets in 1 gal. of water. Soak roots in this 15 to 30 min. Pour solution around plant when set. To stimulate growing plants, for the first application, dissolve one tab. in 2 gal. water. For succeeding waterings, use 1 tab. to 4 gal. water once a week. **Warning.** Do not soak dormant bulbs in Vit. B-1. It rots them.

Sources of more information. Subscribe for Flower Grower, Albany, New York. \$2.50 per year. \$4.00 for 2 yrs. Send directly to them. Also join local garden clubs.

I belong to and recommend The American Plant Life Society. Please note under Amaryllidaceae; also The American Horticultural Society. The latter society publishes The National Horticultural Magazine, quarterly, which members receive. The magazine is printed on heavy book paper, beautifully illustrated and covers entire field of horticulture, not merely bulbs or house plants. Send \$3.00 for annual membership to The American Horticultural Society, Inc., 821 Washington Loan & Trust Building, Washington 4, D. C.

GARDEN REFERENCE BOOKS

Bailey's Cyclopedie of Horticulture. This 3-vol. set of over 3,600 pages describes almost every cultivated plant and has a wealth of culture information. Price \$25.00, postpaid. N. B. The publishers have sold out the last editions of this and Hortus Second. New editions have been in preparation for several months but due to paper shortage it is likely that orders may be delayed several months. Both works are worth waiting for. Only thing you can do is to put in your order and your check and wait in line the same as I am doing for a new car.

Hortus Second. (Bailey) A Concise Dictionary of Gardening. This 778 page volume lists and describes nearly every plant offered in catalogs, and some that are not in the Cyclopedie of Hort. It contains only a few culture hints. Both works should be in every garden library. Price \$5.00.

A Southern Garden, by Elizabeth Lawrence, a handbook for the Middle South. A most useful handbook for all gardeners, north or south. Bulbs and all garden plants. 251 pages. Price \$3.00.

Enjoy Your House Plants. Excellent handbook of window gardening by Dorothy Jenkins and Helen Van Pelt Wilson. 238 pages. Price, \$2.50.

Begonias And How To Grow Them. Bessie Raymond Buxton. Invaluable in growing all Begonias, including the Tuberous. 161 pp. \$2.25.

Greenhouse Gardening For Everyone. By Ernest Chabot. I can recommend this book to you if you have a greenhouse. It will save you from having to learn the hard way, thru experiments and losses. Important factors are here noted including correct temperatures for forcing a great variety of plants including bulbs and orchids. 266 pp. \$3.00.

American Orchid Culture. Edward A. White. This is a complete handbook of American Orchid Culture for both commercial and amateur growers. Most interesting accounts of Orchid hunting trips, in many lands, are related. 14 beautiful color plates and many other illustrations. A beautiful, interesting, useful book. 276 pp. \$5.00.

All Books listed are nicely cloth bound and printed on best book paper. All will

be mailed postpaid for the price but be sure to add 3c for insurance to \$5.00. California customers must add 2½% Sales Tax.

BULBS AS POT PLANTS

Bulbs are easy to force in your window garden or your greenhouse. Much more food is stored in a bulb than can be stored in a seed or even a small plant and bulbs therefore bloom long before plants and seed, often even before the seeds come up.

The following are the most desirable of all bulbs and plants for growing in pots, that can be potted in late winter or early spring: Amaryllis, Clivia, Haemanthus, Sprekelia, Tulbaghia, Marica, Orchid, Calla, Caladium, Begonia, Gloxinia, Anemone, Ranunculus and Billbergia. Many others in our list are desirable and do well in pots. In fact, one can grow nearly any plant in a pot if the plant is not too large and its conditions of growth are provided.

POTTING DIRECTIONS

Bulbs bloom better in pots that are not too large. A 2½" Amaryllis will do well in 6" or 7" pot. Many use a 5" size but I prefer to give as large a pot as will be favorable to flowering. Give larger or smaller bulbs of any sort, pots in proportion to this size, that is 2 or 3 times the diam. of bulb. Small bulbs may be planted 2" or 3" apart in any size pot.

Most large bulbs, like Amaryllis, may have ⅔ of bulb above soil surface but small bulbs, especially Anemones and Ranunculus, should be covered about 1".

Use clean pots. It is advisable to boil and scrub the surface. Even new clay pots should be boiled. Cover the hole at bottom with a piece of broken pot, concave side down. Above this place small pieces of broken pot and gravel. This helps to drain away excess water.

The drainage must be perfect and it is essential that the soil above this drainage material be of a friable texture that permits water to pass thru freely. I have seen bulbs potted in a heavy clay soil that appeared to be doing well, but such soil endangers them and the bulbs are unlikely to prosper for very long.

The best soil is a rich sandy loam with the addition of plenty of humus. For humus one can combine rotted leaf mould and old rotted dairy manure well broken up and rubbed thru a screen of smallest gauge. For most plants the proportion can be ⅔ sandy loam, ⅓ humus.

Fertilizers. Many advise the addition of fertilizer to potting soils. We never use any except the rotted dairy manure and leaf mould and sometimes a tablespoon of bone meal. If new roots come into contact with much fertilizer they are burned. Commercial fertilizer is especially a hazard. When the plants have become well rooted and have made a good top growth, most of them will be helped by using liquid manure. Cover manure with water and allow to settle. Pour off water and dilute further until it is a very light amber, the color of weak tea. This can be used about every two weeks but don't use it on dry soil and thirsty plants.

Sun exposure. Note requirements of plants under listings. For full sun, use a south window. For half sun use an east or west window and add a thin curtain if it proves too much. For Clivias and others requiring full shade or only a little filtered sunlight, use a north window or place on a stand at a distance from window, but always give plenty of light and good ventilation, especially in gas heated rooms.

Temperature. Most bulbs root better in a cool room of 50° to 60°. There must not be too much water given while roots are starting as it may cause bulbs to rot even when cool. When a bud or foliage shows that growth has started, gradually bring the temperature to about 70° and water a little more. The best temperatures for plants vary. Some like more warmth than others. This is indicated in the special culture directions for these plants.

After flowering, very few plants may be dried off. Early blooming plants, especially, must be kept growing for a long time, some of them, like Amaryllis, for all summer.

Amaryllis and many others may be plunged or shifted to the outside garden when weather is sufficiently warm, to complete their growth. Give them good culture, enough water and liquid fertilizer or manure mulch to keep them growing. Only when leaves begin to yellow in spite of good culture, are they ready to become dormant. Then gradually dry them off and repot. Bring in before heavy frosts.

CATALOG ARRANGEMENT

is by Plant Families. We also try to group plants according to their relationships, rather than alphabetically. You need to read the entire catalog.

In the following lists, the **genus** (plu. **genera**) is mentioned first. After it, the **species** (plu. also **species**) or horticultural variety is named. The initial of the genus is used for the second and succeeding species. Thus A. will stand for Amaryllis or Agapanthus depending on the genus last named in full.

THE AMARYLLIS FAMILY—*Amaryllidaceae*

This Family includes the following bulbs, Agapanthus thru The Alliae.

The American Plant Life Society was founded in 1934 as The American Amaryllis Society. The interests of the Society have recently been enlarged to include other bulbs and plants and the name changed, but with no lessening in interest in Amaryllids.

The annual book, "Herbertia," is devoted to Amaryllids. It consists of about 250 pages, beautifully illustrated, on fine book paper, and is edited by Dr. Hamilton P. Traub of the U. S. Dept. of Agriculture, the greatest living authority on the Amaryllidaceae. Each member receives a copy.

The members also receive the occasional publication, "Plant Life," on other bulbs and plants.

Those who grow Amaryllis as an interesting and intellectual hobby and who love their vivid beauty, are invited to become members of the society. The annual dues are \$2.50 per year, which you may send me.

Due to paper shortage, Herbertia volumes for 1945 and 1946 have not been published. No actual date can be set, altho it was expected that both volumes would be distributed in 1946. But the paper situation has become worse instead of better, as hoped for. I am actually writing this catalog with no assurance that the paper for it, ordered last June, will be delivered in time to issue it in January.

Herbertia is worth waiting for and if you want it I suggest you send your \$2.50 for 1945 membership or \$5.00 for 1945 and 1946, and stand in line. We have to wait for many things. I am standing in line for a cook stove, refrigerator, auto and other things. For the want of a car we can now go places only in a White Truck, open cab. But we have deposited our \$100 check on a Station Wagon and after many weary months of waiting we have slowly moved up to third place. We shall get our Station Wagon and you shall get Herbertia as soon as possible to produce them.

Latest word from Editor, Dr. Traub, states, **Herbertia**, vol. 12, has been in printer's hands for a long time. Vol. 13, practically complete. Vol. 14, well along. **Plant Life Saparata** prepared: Holland Bulb Industry, 1940 to 1945; Bromeliaceae, (Billbergias, etc.); Callas, (Zantedeschia); Verbenaceae.

Nomenclature. Carl Linnaeus, father of modern Botany, made the first scientific arrangement of plants according to relationships in the 18th century. His information about many plants was wholly inadequate to achieve perfection for his huge task and later explorations and discoveries in the plant field have made possible many improvements in arrangement and nomenclature. Horticulturists are often loath to accept the new classifications and names, but it is to our interests to accept truth, tho sometimes uncomfortable at first. In order that our customers may not order a bulb they already have under a new name, we give both names.

Agapanthus means Love Flower. Blooms in spring and summer. Large attractive umbels, blue or white on tall erect stiff stems. Easy to grow in south in full sun or slight shade, any good soil and in the north in tubs or buckets, wintered in basement.

Delivery any time except for the deciduous variety, *mooreanus minor*, which is delivered in winter to early spring.

***Agapanthus africanus*, var. *mooreanus minor*.** Dwarf and well suited to pot culture. Blue flowers on 18" stem. Give good garden loam, rich in humus, partial shade. Deciduous, but should not be entirely dry over winter. Arrange in groups of 3 or more plants. For pots, since the roots are very large and the plant's chief storehouse of food, it is better to plant 3 in an 8" pot or 4 or 5 in a 10" pot, than only one in a 4" or 6" size. 50c ea. 3 for \$1.20. 4 for \$1.50. 5 for \$1.80.

***A. longispathus*.** New species. Flowers resemble *Orientalis* but blooms more profusely and is more graceful. 75c ea. 3 for \$2.00.

***A. orientalis* (*umbellatus*).** *Blue Lily of the Nile*. Our variety is an especially fine one with deep blue flowers on a tall stem. Many flowers are produced in spring and thru summer. 50c ea. Extra large roots, 75c.

***A. orientalis*, "Sky Blue."** Lovely light blue. \$1.00 ea.

***A. orientalis*, var. *albidus*.** Has pure white flowers. \$1.50 ea.

***Amarcrinum Howardii*.** A cross between *Brunsvigia rosea* (*Amaryllis belladonna*) and *Crinum moorei*. Flowers are a pure pink and very attractive. As it is a winter bloomer and profuse it is a valuable bulb for a large pot. Moved in the spring, it will bloom the following winter. \$2.50.

***Amaryllis*.** Under this genus we are listing all species and hybrids formerly listed under *Hippeastrums*. *Amaryllis* is the old-time popular name. They are probably the most popular of all bulbs for growing in pots and equally valuable for southern gardens. They are hardy thruout the south along the Atlantic coast to N. Carolina and even up into Oklahoma they can be grown outdoors in well drained soil, planted about 4" deep and mulched with straw, leaves or brush over winter.

How to Grow Amaryllis in Pots. When bulbs are received, pot at once. Have pots and soil ready to receive them. Do not remove or injure any living roots that are attached. Moisten these roots and base of bulbs and dip or sprinkle with Rootone. Rootone is not essential but it helps the development of new roots.

A bulb under 3" diam. needs a 7" pot. Larger bulbs should have an 8" pot or larger.

The best potting soil is a friable loam. To this add an equal volume of a mixture composed of equal parts of sand, well rotted cow manure and rotted leaf mould. Use no peat. Bone meal is recommended, 1 tablespoonful to each pot. Mix all thoroly.

Pot the bulb two-thirds above surface. Water well but after that keep the soil only slightly moist until growth starts, then gradually increase. When first potted set the bulbs in a cool, light room. The best temperature now is 50°. Later the pots may be removed to a room of about 60° to 70° which will force more rapid growth and earlier flowers and this is all right when the bulb is well rooted.

After flowering, a period of growth is necessary to fill them out and increase their size. If good growth is made at this important stage the bulb will be much larger than in the preceding year and offsets may be made. Keep them growing as long as possible. When the weather is warm outside the pots may be plunged in the garden or the bulbs with entire, unbroken clumps of roots and earth may be removed from pot and reset. Bulbs may be planted in full sun, but slight shade is good where very hot summers prevail. When bulbs are well established give liberal mulchings of dairy manure. Use stable manure carefully. It is good but very strong. If it does not rain every week give a good irrigation. Before heavy frost, remove to house. Allow them a rest of several weeks but do not allow pots to dry out completely. The temperature of 45° checks growth. When you want them to start, bring to 60° and water a little. You can become expert in obtaining flowers every year.

In the garden, plant *Amaryllis* just under the soil surface.

I am frequently asked why the inquirer's bulbs do not flower. Perhaps they have flowered the first year after their purchase but not thereafter. Some state their bulbs become smaller each year. These results inevitably follow poor culture. If you give them correct culture, plenty of water and liquid manure when growing well after

flowering and keep the growth luxuriant for about six months or more (as long as they will grow) you will have nice fat bulbs, with a bud or buds formed within for the following season. Don't check their growth. Leave that to the bulbs.

When leaves naturally begin to yellow it is a signal that they would like to rest. Some bulbs will continue to have green foliage but one should reduce water to give an early winter rest. Well established bulbs can often be brought into flower in January or even by Christmas. But they should have had a few weeks rest preceding that.

How to judge the quality of the flowers of Amaryllis hybrids. The perfect flower of the Leopoldi type should be 5" to 8" across. The petals should be well rounded and broad, overlapping each other, no twisting of petals, and they should form a wide open, flat flower. The texture should be smooth and firm, of good substance. The tube should be short. There should be little or no green in throat but as the species Leopoldi contains considerable green there are few hybrids that do not contain some green. Very few are perfect in any respect.

There should be no dull colors, like brick red. But colors should be bright and of every imaginable tone within the range of this genus.

Self colors are desirable to go along with stripes and other variations. But it is difficult to get other than red selfs and these are unusual. A few of our Select Strains, American Hybrids are pure red, scarlet, rose or pink selfs. But they are few and not separately labeled. Don't order self colors or any colors except as listed. For pure self colors, order Dutch Hybrids. All are pure selfs, except Purple.

Please note. There is no quantity discounts on Amaryllis except as noted with listing.

Amaryllis advena. Oxblood Lily. 5 to 8 ox-blood red flowers in an umbel, on a 10" slender scape, preceding foliage. Fall bloomer. **Culture.** Not suitable for pot culture, but so nearly hardy that in mild sections of north it will succeed. In Michigan, in the section where peaches are grown, this Amaryllis has been grown commercially. It may be planted 6" deep and mulched, in a protected situation. Full sun exposure, heavy or medium loam soil is good but does well in lighter soils also. Price 50c ea. \$5.00 doz. Delivery late June.

AMARYLLIS, SELECT
AMERICAN STRAINS





**AMARYLLIS,
WHITE BACKGROUND**

A. psitticina. Species from S. Brazil. Large bulb and plant. The large flowers have green tinted throat with carmine lines radiating to the carmine edge of petals. The effect is of a very pretty red Amaryllis. Here this species flowers in winter and is a free bloomer. Price \$6.00 ea. Recommended only to breeders, collectors, or for earlier blooms. A \$1.00 hybrid will be prettier.

A. Hybrids, Select American Strains. These are the best American hybrids, of Leopoldi ancestry. Many Amaryllis sold are chance seedlings grown from seed collected in the field. These are likely to produce the sturdiest bulbs. From a vegetative standpoint they are the best. But for the most beautiful flowers, breeders select the best parents having the most beautiful flowers, grow them in a greenhouse and cross them by hand. Our Select Strains are produced thus.

Color Classes. These are named from the parents. When they first bloom, off colors are removed or "rogued" out. They are again rogued the second year. Nevertheless, the color classes are only approximately correct. Many off colors are missed when rogueing. There is also a wide difference in opinion as to color. One calls a flower pink. Others may call it rose. Therefore, we do not guarantee the color but we do exchange them if the customer is not satisfied. Seldom, however, is a customer willing to part with a bulb of this strain, even tho it be an off color.

Select American Strains, Assorted Colors. $2\frac{1}{2}$ " diam., up. 90c ea. 3 for \$2.50. \$9.75 doz.

Select Am. Strains, White Background. White, with light to medium markings of color. $2\frac{1}{2}$ ", up, \$1.00 ea. 3 for \$2.85. 3" diam. \$2.50 ea.

Select Am. Strains, Near White. These are much nearer to pure white than White Backgrounds. Large bulbs, nearly 3" diam. or over, \$5.00 ea.

Select Am. Strains, Red Shades. $2\frac{1}{2}$ ", \$1.00 ea. 3 for \$2.85. 3", \$2.50 ea.

Select Am. Strains, Scarlet, $2\frac{1}{2}$ ", \$1.00 ea. 3 for \$2.85. 3", \$2.50 ea.

Select Am. Strains, Rose. 3", \$3.00 ea. $3\frac{1}{2}$ " up \$4.00 ea.

Special Offer. Select Am. Strains. In Dec. we were obliged to dig an old block of large bulbs. Many labels could not be read. In order to classify the colors we would

have to plant, grow one year and either dig again and regroup them when in flower or label each bulb and finally dig again when sold. All this would cost at least 75c per bulb and we haven't the time anyway. We prefer to give you this saving on cost. The sizes are approximately 3" up. Order as "Special Offer, Am. Select Strains, large bulbs, assorted." Price \$1.75 ea. 3 for \$5.00. \$18.00 per doz.

Select Strains, Dutch Hybrids. For many years we have received inquiries for pure white, red, pink or salmon Amaryllis. No American grower offered them and the cost of such bulbs in Europe plus duty, transportation, marine insurance and the many fees that must be paid seemed to make the final retail price prohibitive.

This present time and its conditions seemed to offer a good opportunity for the importation of these better Amaryllis hybrids. I have imported a few now and then for about 35 years. The best I have ever had came from a certain famous Dutch Grower. On inquiry he informed me that in spite of war, he had saved his Amaryllis and that his stock was in a fine healthy condition and equal to his pre-war standards.

I must admit that it did require much consideration and some courage to invest thousands of dollars for one shipment of Amaryllis bulbs. Because of strikes we had to obtain marine insurance with a clause covering loss because of strikes. But the bulbs arrived in Dec. in good condition.

These are the highest type of Leopoldi hybrids in pure self colors except the new color, "Purple." The grower did not specify a pure color for them. Probably some are selfs and others may have markings. The quality in every way,—form, texture, color, is better than that of any American hybrids. I have not seen the flowers of all of these but in those I have seen, there is less of the green in the throat and less green tint in the white when they first open, than in any others. Very many white Lilies and other bulbous flowers are tinted green when first opened but this soon fades out to a pure white. The purple will probably be a rose purple, which I have seen rarely. It is a delightful color which the flower holds better in slight shade.

Size. The smallest blooming size is 18-20 cm., or 2½" to 2½" diam. These are one size larger, 20-22 cm., or from a little over 2½" to a little over 2¾". This is a good blooming size.

Select Strains, Dutch Hybrids, Pure White. \$10.00 ea.

Select Strains, Dutch Hybrids, Pure Red. \$7.50 ea.

Select Strains, Dutch Hybrids, Pure Salmon. \$9.00 ea.

Select Strains, Dutch Hybrids, Pure Pink. \$12.00 ea.

Select Strains, Dutch Hybrids, Purple. A very unusual color. \$10.50 ea.

Breeders Collection. This strain is especially fine for producing seeds of the highest type of Amaryllis. The seedlings of this strain bloom when two years old. See our directions below for pollinating flowers and for growing from seed. Thus, two years will bring an exceptional profit, either in pleasure or cash. We offer one bulb of each color, 5 bulbs in all, value \$49.00, for \$45.00. Order as Breeders Collection of Dutch Hybrid Amaryllis, 5 var. \$45.00.

A. American Hybrids. Assorted Colors. These are from various sources and are good Amaryllis. Better than dime store types. Blooming sizes, 50c ea. Large bulbs, nearly 3" or more, 75c ea.

A. Rutila Hybrids. This is a California strain apparently derived from the species Rutila. They are mostly one color, orange scarlet with white in throat and a green tinted keel. This strain is as vigorous as I have ever seen and very rapid multipliers. The color and vigor make them valuable for landscape use where a bright splash of color is wanted. It also recommends them for planting deep on the border line of Amaryllis hardiness in parts of Oregon, Wash., Okla., Ark., No. Car., etc. Easy in pots. Large bulbs, nearly 3" and up 75c ea. 3 for \$2.10. \$50.00 per 100 f. o. b. La Verne.

A. Johnsoni, A. Ambigua, Sibyl Houdyshel, and Diener's Hybrids. Sold out, do not order.

Amaryllis Seed. It is better to grow your own seed and plant it fresh as the seed lose vitality quickly. **Plant Breeding** is an interesting science and art. It will involve and develop great skill, ideals of beauty, good taste and intelligence. I suggest you start

with our Select Strains. Get several bulbs and use the pollen only from those you like the best. Better still, start with even one bulb, several, or a collection of the 5 colors of the Dutch Hybrids. Cross pollination is easily accomplished by placing the powdery pollen borne by the six stamens on the stigma in the center. The stigma when ready for pollen will usually be opened into three parts. Cross only similar colors.

When the seed pod is ripe it bursts open and may be removed and dried. Plant the seed (soon) in a fine sandy loam containing plenty of humus. Do not use peat. Cover seed about $\frac{1}{2}$ ". Seedlings may be grown in pots in house or greenhouse where they will continue to grow all year without a dormant interval until they flower. Usually this requires 2 to 3 years. In the warm south they can be grown outside under the half shade of lath. But frost usually destroys foliage in winter and cool nights interrupt growth, slowing development.

Brunsvigia rosea. Synonyms, *Amaryllis belladonna*, *Callicore Rosea*. This bulb is familiar in Calif. and many parts of the south as *Amaryllis belladonna*, Naked Lady Lily, etc.

These begin to flower often in late July. The variety **Major** is in full flower in Aug. **Minor** follows soon after. The umbels are many flowered and the flowers are of the most exquisite pink and most entrancing fragrance. They are not suitable for pot growing as in pots they flower only the first year. But that flower is well worth the cost of the bulb.

It is hardy where winter temperatures go as low as 10° or 12° above zero. That limits its culture to the south, and along the coasts to N. Car. and the state of Washington.

Unfortunately, most people want to order and plant these bulbs in the fall, after the proper blooming time. The bulbs do not like this time and they do much better if dug while dormant and planted back reasonably soon. To induce you to plant in August, I am offering some reduced prices and a quantity offer for those who buy wholesale. Delivery in July or August.

Culture. Plant in full sun or slight shade. Cover top of bulb with 2" or more soil,—deeper in cold sections. In sections of heavy rainfall in mid-summer when they are dormant, they should be planted on a ridge or raised bed as they prefer to be dry when dormant.

Brunsvigia rosea, major. Pure pink, 35c ea. L. 50c ea. Jumbo 75c.

B. rosea, minor. Later to flower. Pink with lighter throat. 65c.

B. rosea, var. Ethel. Very deep, beautiful rose. \$2.00.

Special Wholesale Offer. We planted on rented land and must vacate. For those who buy wholesale or wish to make a large planting we offer *B. rosea major* at \$15.00 per 100 f. o. b. La Verne.

Chlidanthus fragrans. Golden yellow flowers in spring. Entrancing, spicy fragrance. Three or four flowers in an umbel on a 10" scape. Plant 3" deep, in full sun. They like to be crowded whether in garden or pots and when bulbs fail to flower freely it is often because the bulbs' entire energy is spent in vegetative increase. Remedy, don't divide clumps. Let them become crowded or pot bound.

Altho cheap, this is one of the most desirable bulbs for southern gardens. In the north it can only be grown in pots. It should be potted as soon as received but start it into growth slowly. 25c ea. \$2.00 per doz. Planting stock, small bulbs, some of which may flower, 50 for \$3.50. 100 for \$6.00 postpaid. 1000 for \$50.00 f. o. b. La Verne. Gardeners in the south should order these in quantity.

Clivias. Altho easy to grow and to flower by the amateur, they will always be classed with the aristocrats of flowering bulbs, because the flowers easily place them there. They increase so slowly by division that the chief method must be thru the freely produced seeds. But Clivias require at least five years and usually seven, to flower from seeds. This time involves expense. They can never become very cheap.

Clivias have evergreen, strap-like foliage somewhat resembling that of Amaryllis. The flowers are produced in umbels of 10 to 25, in rich and exquisite tones of orange, in

March and April. When not in flower the deep rich green foliage and later the red fruits are most ornamental.

Culture. They are usually grown in pots, even in the south, as more perfect foliage is thus possible, and when in flower one wants them in the house. We grow them in a lath house, lath spaced $\frac{1}{2}$ " apart, and in garden under Avocado (evergreen) trees. They must have shade with only a few flecks of sunshine, but plenty of light and air.

Clivias must never be dried off or allowed to lose their foliage. Keep them well watered after flowering, all summer and fall. Liquid fertilizer occasionally helps. When growth ceases in late fall rest them by giving them less water. But keep moist enough to prevent wilting of foliage. At this time they should have a cool room with temperatures from above 32° to not much over 50°. Pots should be 8" for a small plant up to 12" for larger. As they grow and increase, do not divide but shift to larger pots. Drainage must be perfect. Potting soil is described under "General Culture Directions." pH 7 is about right. One cannot guarantee a Clivia to flower the first year after moving tho they usually do.

The foliage of our Clivias, grown outside in the ground, will not be as perfect as that of pot grown plants. But when potted, they replace the old foliage in a few months and become specimen plants.

Clivia miniata. Wide open flowers of soft yellow orange. Hardest, \$3.00 ea.

C. miniata hybrids. Similar to the species "miniata" in foliage, hardiness, wide open flowers, etc., but there is some variation in color and form of flower. Most of them are in light orange tones. A few are dark and a few have a white throat. Do not express your color preference for any Clivia hybrids as we cannot tell the color from the plant. Blooming size, \$5.00 ea.

C. nobilis hybrids. Again we can offer a few. These have wider foliage and are less tapering at tip. The flowers are larger, with more rounded petals and many are darker red-orange in color. Blooming sizes, \$10.00 ea.



CLIVIA. THIS WAS A BUDDED
CLIVIA BLOOMING SHORTLY
AFTER RECEIPT

Budded Clivias. The sure way to get a flower the first year is to buy one with bud started. When moved thus the plant develops the flowers with no serious check. Prices, *C. miniata*, budded, \$3.75. *C. miniata hybrids*, budded, \$5.75. *C. nobilis hybrids*, budded, \$12.00. If we cannot send a budded plant we will refund the \$2.00.

Crinums are large bulbs and plants. They are indispensable in southern gardens for landscape effect among shrubs and trees. The flowers are useful for cutting and should be grown by all florists who must grow their own flowers. Only *C. longifolia* is quite hardy. *Crinums moorei*, *Powellii alba* and *Cecil Houdyshel* are only a little less hardy and can be grown up to southern Ohio, Mo. and Kan.

Grown among trees and shrubs, in combination with Daylilies, true Lilies (Liliums), etc., one has a permanent planting that need not be dug up or divided for many years. Other bulbs like colored Callas (also shade loving) that are usually dug and stored in winter may be interspersed. All the above thrive with any good soil. A heavy mulch of leaves, will help preserve moisture and keep down weeds. Two or more mulchings of manure during summer is excellent for Crinums and as a mulch you can use any kind and even fresh, rather liberally but experiment as to the amount. Do not over-fertilize recently set plants and remember too much may produce vegetative increase at expense of bloom in any plant. Even trees, under its effect, may make great growth but yield no fruit.

In the deep south, plant Crinums shallow, only a few inches deep. In the north deep planting up to 8" or more is necessary for the hardier sorts as the bulbs must not freeze. Altho they like a little shade, nearly all do well in full sun, except *Moorei*, which must have shade.

Crinums succeed in pots or tubs, but they are too large for small quarters. The pots may be stored in basement over winter, placed outside in summer.

Crinum asiaticum. Very large bulbs, plants and flowers. The flowers are pure white, fragrant and resemble a spider lily. For deep south, or greenhouse, in lg. tubs. \$4.00 ea.

C. campanulatum. Belongs to the "Milk and Wine Lily" type. That is, the flowers are white with a bright rose stripe thru center. \$1.00.

C. Cecil Houdyshel. Flowers, deep rose pink. One of the best hybrids, all qualities considered. It is the same cross as *C. Powellii* but is much larger, more robust and instead of flowering in but a limited period it is almost a perpetual bloomer. Large bulbs often produce 7 or more flower scapes in a year, the most profuse of all. Blooming size, \$2.00. Jumbo bulbs, \$3.50.

C. Ellen Bousquet. Most outstanding. It is most surprising to see a Crinum with such dark, glowing wine red flowers. Very vigorous and easy. Jumbo \$1.50. Large \$1.00. Medium 60c.

C. erubescens. "Milk and Wine" type. The center stripe is red-purple. 50c ea. Jumbo \$1.00.

C. H. J. Elwes. Pink flowers of unusual beauty. \$4.00.

C. kirkii. One of the most desirable of "Milk and Wine" type. White flowers with red center stripe. The large umbels have many flowers open at one time. 75c ea. Per doz. \$7.00. Jumbo bulbs \$1.25.

C. longifolia alba. (Syn. *Capense alba*.) White lily-shaped flowers. This is the hardiest species, surviving the winters with protection if planted deep, as far north as Ohio. Better than "rosea." 50c.

C. Louis Bousquet. Very free flowering thru an unusually long season. Pink flowers on a very tall, erect scape. \$1.00.

C. moorei. Large pink, bell-shaped flowers in the fall, freely produced. The long neck of the bulb surmounted by rotated leaves give the plant great decorative value. Requires shade. Nearly as hardy as *longifolia*. Jumbo bulbs \$1.00.

C. powelli alba. Extra fine pure white. One of the most valuable and beautiful Crinums. 50c ea. Jumbo \$1.00 ea.

Elisena longipetala. Very rare and lovely Peruvian amaryllid. It is related to the *Ismene* but the pure white flowers are far more delicate and graceful. Culture like

Ismene. It can be forced in pots or grown in the garden in summer. Bulbs stored over winter like Glads. It is hardy in the middle south. This fine, rare bulb should be in every collection of unusual bulbs and we offer at the reduced price of \$2.00 ea. this spring.

Haemanthus. This south African genus is very rare in cultivation. Very few have ever seen one. They are hardy only in an almost frost-free climate like So. Calif. or Florida. In their habitat, the following grow in cool, moist forest glades where there is little sun but plenty of light and where light breezes keep the air in motion.

Culture. They should be grown in pots except in climates like Florida and So. Calif. The soil should be equal parts of loam, coarse sand and peat or leaf mould made thoroly fine. Drainage should be perfect. A tablespoonful of bone meal to each pot is useful. The species listed here require cool shade, little sun, but light. An abundance of water at all times when growing is required but rather on dry side during late winter dormancy. But not too dry. When bulbs are received pot at once and water. Do not water much before growth starts. Altho a little warmth favors earlier growth and flowers it may be easily overdone.

Haemanthus Katherinae. The bright red flowers fill a large rounded umbel often 10" or more in diameter. I have counted nearly 125 in an umbel. The broad banana-like foliage droops gracefully into an umbrella form. Scarlet seeds follow the flowers. A plant in flower is an unforgettable sight of tropic beauty. The entire plant is of quite large proportions, the foliage and flower umbel reaching a height of 30" to 36". Introduced from Natal in 1877, they are yet very rare. Give them a 14" to 16" pot or tub.

Katherinae is almost evergreen but usually tops either die or decline in January. We can move them between January to March but if wanted you should order at once. Price \$10.00 ea. Largest bulbs \$12.50.

H. albiflos (misprinted "albidus" in fall cat.). A rare species just received from Holland. Quite unusual too in appearance. There are 2 to 4 wide, short leaves, semi-erect and evergreen. In the fall a very curious flower umbel, paint brush shaped, appears with 75 or more white flowers in a dense head. Pot the bulbs with most of bulb above soil surface. Do not give much sun as foliage burns easily. \$3.50 and \$4.50 ea.

H. coccineus. Blood Lily. This rare amaryllid usually produces two leaves, which lie almost flat on the ground. They grow all winter and die down in early summer. In early Sept. or later the flower scape appears, preceding foliage. This scape furnishes part of the floral display, being marked by contrasting red spots on a bright background. The 4" umbel consists of very numerous small, densely placed blood red flowers. These are followed by the fruits which turn red upon ripening. Each fruit will contain one or more large seed which may be planted and handled like Clivia seed. In the south plant the bulbs with top even with soil surface. Sandy loam preferred, abundant leaf mould and a little peat. Half shade. Easy in pots, where half of bulb may be above soil. Stock very limited. Order early. Summer delivery when dormant. \$3.00 ea. Extra jumbo size, \$4.00.

Hemerocallis. Daylily. The flowers range in color from dark bronzy red, thru pastel tones of pink to orange and yellow. They are borne on a branching scape well above the foliage.

The Greek name, meaning "beautiful for a day," refers to an individual flower. But these are so freely produced, thru a long period, that "beautiful every day" would be more apt, as a collection of several sorts show masses of flowers thruout the spring, summer and fall and here we often have some winter flowers. The modern sobriquet of "The Perennial Supreme" is well deserved.

Culture. While their beauty is their greatest recommendation, their easy culture and hardiness add to their desirability. I have known abandoned plants here, where we have arid, hot summers, to persist for years. They grow well in full sun. Slight shade is better. If given constant moisture about their roots, preserving this and coolness of the earth with a good mulch, the plants are ideally situated and respond with generosity. They are hardy even in severe winters in the north. They are fibrous

rooted, not bulbs, and must be planted at once when received. Altho they can be moved any time, it is better to ship from late fall to early spring.

They should be used more extensively in permanent borders and landscapes. Plant them along with Crinums and shrubs. Both Crinums and Daylilies are as permanent as the shrubs and seldom need thinning. Both can use top dressing of manure.

In Daylilies, the sepals are colored and petal-like and are an essential part of the floral display. Approximate flowering dates are given.

Hemerocallis Araby. A lovely pastel color, with the effect of bronze on gold dust. 30". \$3.00 ea.

H. Bagdad. Coppery red over orange veins. Mid-zone of madder brown. Very striking large flowers. 3 ft. June-July. \$1.00.

H. Calypso. Large, fragrant lemon yellow flowers. Opens in evening. 42". June-August. 30c ea. \$3.00 per doz.

H. Cecil Houdyshel. A Dr. Traub origination. A deep crimson, with an old copper shade that makes it outstanding in our garden. Slight shade gives better color to flowers. 3 ft. June-July. \$3.00.

H. Chengtu. Brilliant coppery orange-red with carmine mid-zone. 3 ft. July-Sept. \$1.00.

H. Cinnabar. Cinnamon sprinkled over orange, gold-glistening. 30". July-Aug. 60c.

H. Crown Prince. Color like Mikado. 30". June-Aug. 25c ea. Per doz. \$2.25.

H. Dauntless. Cadmium yellow. Fulvous red blended in mid-zone. Pastel effect. 30". June-Aug. \$1.25 ea.

H. Florham. Still popular old hybrid. Large, golden yellow. May-July. 50c.

H. Florida. Pastel shades. Light chrome yellow with rose blush. Darker mid-zone. \$2.50.

H. Fragrance. A fine deep yellow. Fragrant. \$1.00.

H. Kwanso. The Double Orange Daylily. 25c ea. 3 for 50c.

H. Linda. Petals, ruffled golden yellow, flecked with cinnamon, and a Rose zone. Sepals, pure yellow. Very lovely. \$1.50.

H. Margaret Perry. Brilliant orange-scarlet. 4 ft. July-Aug. 35c.

H. Mikado. Orange with mahogany-red zone. A favorite. 3 ft. May-July. 50c.

H. Nubiana. Dark chocolate-red with yellow stripe in petals. One of the darkest varieties. 2 ft. \$4.00 ea.

H. Patricia. Pale yellow. Large fragrant flowers. 30". July-Aug. \$1.50.

H. Radiant. Rich orange. 42". June-July. 50c.

H. Raiah. Deep English red with darker red veins. Garnet red eye-zone. 40". July-Aug. \$1.75.

H. Rosita. Near carmine-crimson with coppery red tone. 36". Part shade preferred. \$3.00.

H. Serenade. Rose-fulvous markings on apricot cream. Faintly overcast darker. 4 ft. June-July. \$2.00.

H. Sibyl. Dark purple-red petals, lighter sepals. \$3.00.

H. Soudan. Lemon yellow. Broad wavy petals and sepals. 3 ft. June-July. 50c.

H. Spitfire. Seems never to quit blooming in spring, summer and fall. Fiery red with yellow midrib, yellow throat. Small flowers but in great profusion. 2½ ft. \$2.00.

H. Vesta. Deep orange with glistening gold sheen. 30". May-July. \$1.00.

H. Vulcan. Dark maroon-red. 30". July-Aug. \$2.25.

H. Buck's Hybrids. These were produced by a very talented Daylily expert, Mr. Quinn Buck. Most of them are good enough to name and introduce but because they are not distinctly different from other named varieties, it has not been done. No descriptions, but yellow, gold and orange predominate. Price, single plants, 50c ea. 3 for \$1.00. We can furnish large clumps that will make fine specimen clumps for \$2.50, by express, f. o. b.

Hymenocallis. Spider Lilies. The true Spider Lilies are pure white with long narrow petals and long stamens giving a spidery appearance. The so-called Red Spider Lily and Golden Spider Lily are Lycoris. **Culture.** They are hardy in the south and

may be planted deep on the border-line as in N. Car., Okla., etc. They do well in pots. In the north they may be grown in pots and shifted to garden with arrival of warm weather or they may be dug in fall and stored like Ismene and Glads.

Hymenocallis sp. Tropical Spider Lily. This appears to be the same as *H. rotata* and *H. tenuiflora* and these two appear to be one species. This is a large species, with pure snow-white flowers over 7" wide. It is evergreen in frostless locations. 50c ea.

H. Harrisii (Harrisiana). A small, deciduous Spider Lily. Flower stem not over 12" tall. Hardy as far north as Washington, D. C. Rare. \$2.50.

Ismene. These are closely related to *Hymenocallis* and were usually classified under that genus until recently. Most botanists now give the Ismenes generic standing.

Culture. They can be grown anywhere in the U. S. or where Glads can be grown, in the garden. In the colder sections of the north, dig the bulbs in the fall and store like Glads. In the middle south, plant 6" deep and mulch well over winter. In the deep south they are quite hardy.

It is very important to store Ismene in a warm room. The storage temperature of 55" is safe and 70" is still better. Chilling may cause flower buds to blast or the bulbs to rot. I have found no advantage in leaving old roots attached. April delivery.

Ismene calathina. Peruvian Daffodil. Large white, very fragrant flowers, tinted green. As in *Hymenocallis*, the stamens are joined by a membrane to form a cup. This is a much larger cup in Ismene and bears a resemblance to the daffodil's cup. 35c. \$3.50 doz.

I. calathina, var. Advance. An improved form with larger bulbs, larger and whiter flowers on a taller scape. \$1.00 ea.

I. calathina, var. festalis. An Ismene-Elisena cross of great beauty. Pure white and very graceful. \$2.75.

I. calathina, var. festalis Triumph. Improved "festalis." \$2.00.

I. calathina, var. Olympia. The largest Ismene. Cream to light yellow. \$3.25.

I. calathina, var. Sulphur Queen. A cross of *I. calathina* and *I. amancaes*. Sulphur yellow, very deep when it first opens. \$1.00.

I. macleana. Our smallest Ismene. The bulb and plant are a little smaller than *I. calathina* and produce several slender 12" scapes with diminutive Ismene flowers that are nice in arrangements. Rare. Special price, 25c ea.

Lycoris are natives of Japan and China. A few of them are now scarce because none can be imported. Most of them are winter growers.

Culture. The species *Radiata* do well in any good garden soil containing humus. All *Lycoris* prefer neutral or mildly acid soil and for *Aurea* especially one should incorporate some peat in the planting furrow. *Aurea* also much prefers a sandy soil and liberal watering when in growth. Delivery spring to fall.

Lycoris radiata. Red Spider Lily. Coral red flowers in a several flowered umbel in Sept. Flowers are followed by the foliage. Flowers have narrow undulate petals and long stamens which give the "spidery" appearance. This is a common flower in the south and one of our most beautiful. Hardy along coast to North Carolina and on Pacific Coast to Vancouver. In pots it flowers only the first year. 35c ea. Largest bulbs, 50c ea.

L. aurea. Golden Spider Lily. This is the famous Hurricane Lily of St. Augustine, Fla. It is one of nature's most beautiful flowers, but rare and expensive. They must be ordered before Sept. 15 as they bloom very early. Hardy only in deep south. \$2.50.

L. squamigera. Amaryllis Halli. The hardy Amaryllis that resembles *Brunsvigia rosea* (*Amaryllis belladonna*). \$1.00. Order before Oct. 1.

Nerine. This genus is seldom seen in America, altho it is one of the most beautiful and varied of the Amaryllids. They bloom in succession from Aug. 1 thru January. They are hardy only in the south where temperatures seldom go under 26°. But they are one of the finest pot bulbs. **Culture:** Pot or plant in mildly acid to neutral soil. Sandy soils are more likely to be acid and drainage is better. Use peat or leaf mould to bring soil to pH 6.5 or 7. Alkaline soil is the most frequent cause of failure. Pot bulbs

at once with bulb well covered and 2" to 4" deep in gardens. Full sun. When foliage yellows withhold water.

Nerine Bowdenii. 10 or more flowers in an umbel 9" wide on a 15" scape. The finest of all and of easy culture. Delivery Jan. to July, sometimes later. \$1.00 and \$1.50 ea.

N. Bowdenii, Pink Beauty. Larger and finer. Late spring delivery. \$6.00 ea.

N. filifolia. Lovely small Nerine with evergreen thread like foliage. Carmine pink flowers on 12" stem. A dozen bulbs may go into a 6" pot. Bloom in Sept. Delivery, any time. 15c ea. \$1.00 doz.

N. massonorum. Earliest, often mid-July. Foliage like N. filifolia. Flowers resemble it but smaller, on a shorter scape. Very long spathe. Delivery any time. 35c ea.

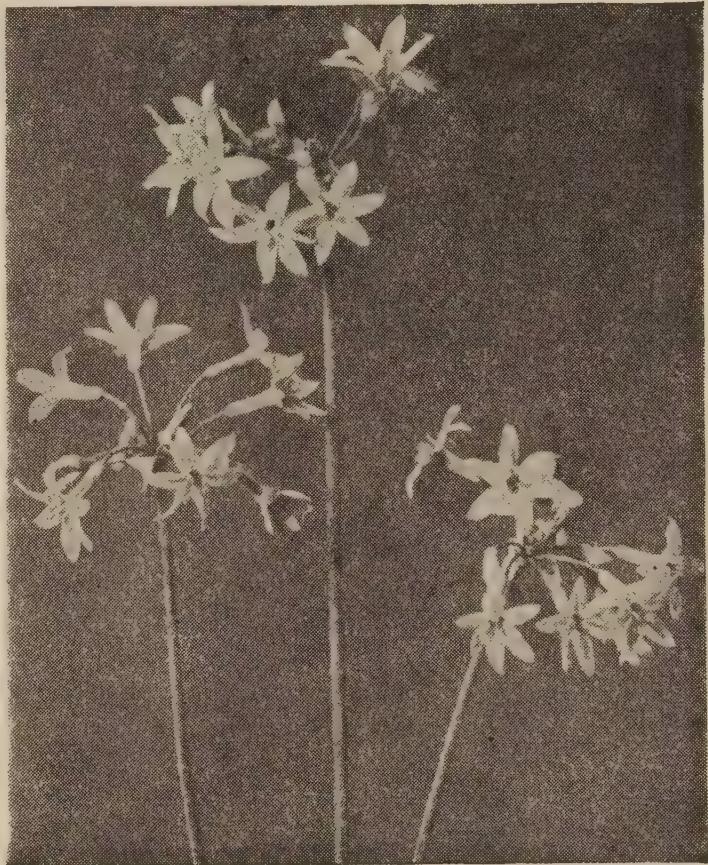
N. rosea-crispa. Hybrid of Filifolia but larger in all parts. Can be kept evergreen or dried off. \$1.00.

N. undulata. Rose pink. Petals with crisped edges. Summer delivery. \$2.00.

The flowers of the last two are much alike and so much like certain other species too that if you can't tell them apart don't accuse us of error.



**SPREKELIA FORMOSISSIMA
SUPERBA**



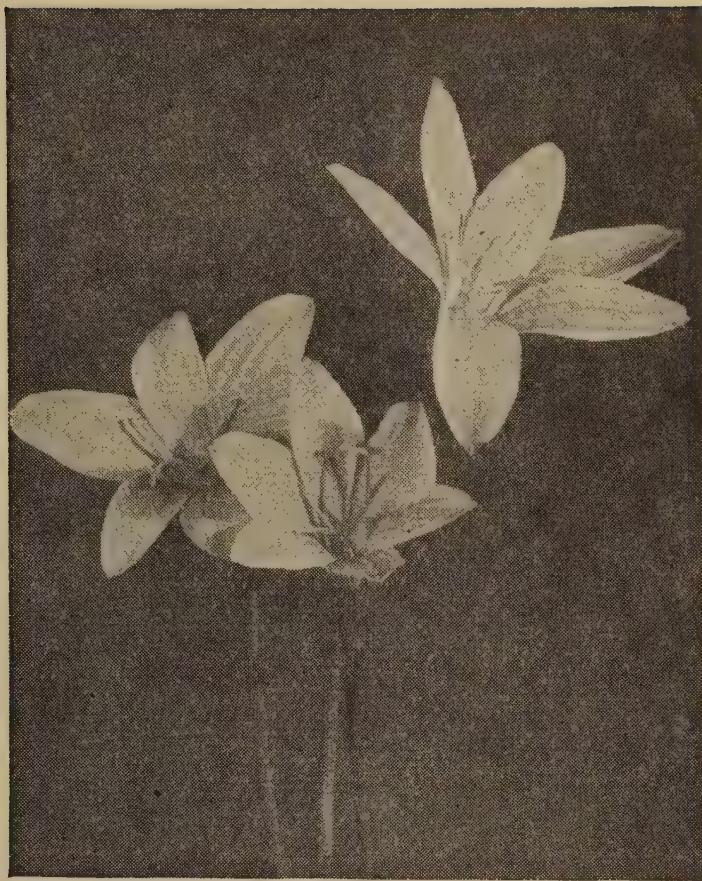
TULBAGHIA VIOLACEAE

Sprekelia formosissima superba. The Orchid Amaryllis. Deep crimson flowers in orchid-like form. This variety is much larger than the common type, better color and more flowers. Unlike the type, this var. "superba" is evergreen. A desirable bulb for pots. **Culture** like Amaryllis. Largest, 75c ea. Large, 50c ea.

Tulbaghia violacea. Small cousin to Agapanthus. Mauve flowers produced thruout the year, a true ever-bloomer. Foliage has garlic odor if bruised. An acquisition for pot culture. 25c ea. 5 for \$1.00. \$2.00 doz.

Zephyranthes. Fairy Lilies. The smallest Amaryllid, 6"-12" tall. Fine in beds or borders. Hardy in middle south. In north dig and store. They may be grown in pots. Give acid soil, sandy loam with leaf mould.

Zephyranthes candida. Often called white Crocus. Best pure white. Evergreen. Very easy. Flowers profusely giving a bed with a snow white coverlet from mid-summer



ZEPHYRANTHES CANDIDA

to early winter. Special. 3 for 10c. 40c per doz. 100 bulbs for \$2.00. 500 bulbs for \$8.00. 1000 for \$15.00.

The Alliae. This group is now placed in the Amaryllis family. Sandy loam is preferred. Do not add too much leaf mould and no peat, as very acid soil is not good. Plant about $2\frac{1}{2}$ " deep. The species Allium are onions and should be grown in full sun unless noted.

Allium Schoenoprasum. True Chives. Lovely little plants with lavender flowers, used for edgings in the flower or herb garden and add zest to salads. 10c ea. 4 for 25c.

A. tuberosum. Oriental Garlic. A pretty Allium with white flowers. An ornament in the garden, indispensable in the herb garden. Leaves give a most delicious flavor to salads without the long-lasting high-powered after effect of garlic. In north, winter the plants in pots. Plants 25c ea.

Bessera elegans. Dainty pendulant flowers in an umbel, orange red on outside of petals, cream with orange stripe on inside. 18" stem. July to Oct. 1. Grows easily from seed. Any good soil, full sun. Plant early, dig and store in fall in the north. 25c ea.

Milla biflora. Estrellitas or Little Stars of Mexico. Dainty, waxy, white flowers on a 12" stem. Fragrant. Free blooming, July to Sept. Easy to grow and easy from seed. Culture same as Bessera. 20c ea.

IRIS FAMILY—Iridaceae

The Iris is the type plant of this family which also includes Gladiolus, Marica, Tigridia and many others that are listed in our Fall Catalogs.

Tall Bearded Iris. The old fashioned name was Iris Germanica, or simply Flags. We thought them lovely, but modern Iris, with their infinite colors, markings and blendings, are scarcely recognizable as their descendants.

Iris may be moved at any time of year, when weather permits digging and replanting. The best time is soon after they are thru blooming. That is May-June in this climate. You may order at once and we will send them now or if you so specify we will send them after flowering, a better time.

Culture is most easy. Plant with roots spread out and rhizomes barely covered.

They may be spaced 1 to 2 ft. apart. Give full sun exposure. They prefer heavy soil but do well in sandy soil. Neutral, pH 7 to mildly alkaline, pH 7.5 is best. They should receive plenty of water until mid-August. About that time or a little later let them dry. They need a hot-dry baking period of several weeks in order to flower well the following spring. Lacking this or when too crowded, too much shaded or as a result of poor culture at proper growing period, few flowers may result. Avoid use of manure or other fertilizers.

Definitions. **Plicatas** have white ground color, often tinted and with deep contrasting color, flushing and bordering this, in fancy "stitching" or in dots and dashes. **Blends** have several colors deliciously blended and iridescent. **Bicolors** have upright petals or standards (S.) and falls (F.) in different tones, the S. lighter. **Variegatas** have S. yellow to bronze and F. in red to maroon.

Alta California. 48". S. deep yellow, perfect in form. 20c ea.

Ambassadeur. 42". S. red violet; F. purple maroon. Late. 15c.

Arcadia Blue. Pale blue. Blooms profusely early and late spring and in fall. 15c.

Attitash. Variegata. S. yellow, citrine and violet blend. F. violet blend. 20c.

Blue and Gold. Blue. Deep gold beard. 20c.

Blue Beard. Better, deeper blue than parent (Crimson King). Fall bloomer. 25c.

Blue Velvet. 46". Intense, deep velvet blue. 25c.

Buechley Giant. Perfectly formed, massive blue flowers; very tall. 25c.

California Blue. 60". Rich blue violet with glowing orange beard. Long blooming season. Deliciously fragrant. 20c.

California Gold. Tall, large, deep yellow. One of the best. 35c.

Canyon Mists. 40". Pink mauve, self colored. Beautiful. 15c.

Cecil Houdyshel. Tall plicata. Ground color white, heavily flushed and feathered lavender. Hardy everywhere. 15c.

China Maid. One of the loveliest new pink irises. Blend of pink, gold bronze and rosy lilac. \$1.00.

Claridad. 30". Best, true-blue iris. 20c.

Coronation. 36". Fine, large, deep golden yellow. 15c.

Cucamonga. Tall velvety blue-violet. Best qualities of Dominion and Mesoptamica.

25c.

Delight. Tall, pink and white plicata. 15c.

Depute Nomblot. The perfect iris. S. copper. 25c.

Desirable. Very striking white and purple. 25c.

Dolly Madison. 36". Large flowers blended mauve and yellow. 20c.

Don Quixote. 42". Large, blended violet and brown. 15c.

Druid. 36". Red maroon and brown. 20c.

Duke of Bedford. 34". Deep red violet. 15c.

El Capitan. 40". Manganese violet. Largest and finest. 20c.

Eleanor Roosevelt. Dark purple. Free fall bloomer. 15c.

Franchiseville. 54". S. fawn, tinted lilac; F. red purple, edged heliotrope. 25c.

Gaviota. Fine cream white, edged yellow. 15c.

Golden Cataract. Deep golden yellow. Most profuse bloomer of all. Here it ceases only in mid-summer and mid-winter. 50c ea. Three for \$1.00.

Happy Days. Our largest, tallest yellow. Most desirable. 40c.

Indian Chief. Huge, brilliant red tone, perfect form, free flowering. 25c.

King Midas. Bicolor. Blended golden buff and garnet brown. 25c.

Lentz Schnee. White, tinted lavender. 15c.

Los Angeles. Tall, large plicata. Snow white, edged blue. 15c.

Loudoun. 30". Yellow lined and dotted with chestnut. 20c.

Louis Bel. Pansy violet and violet purple. 25c.

Mabel Taft. Giant blue bicolor. 25c.

Mary Barnett. 42". One of the best light blues. 20c.

Mary Gibson. 42". Early. Bronze, blended yellow. 25c.

Mary Senni. S. lilac, flushed red brown and red violet blend. 15c.

- Mauna Loa.** Tall and conspicuous. Reddish flowers. 30c.
Melchoir. 36". S. bronze velvet, F. velvety crimson violet. 6" flowers. 20c.
Messaline. 38". Very large. Red brown and red violet blend. 15c.
Mildred Presby. 30". S. creamy white; F. velvety pansy violet, in striking contrast.
20c.
Mme. Cheri. Large pink and violet blend. 20c.
Mme. Durand. Tan and mauve blend. 25c.
Moneta. Tall, red purple and violet bicolor. Off season bloomer. 25c.
Ningal. Magnificent blend of pastel shades in rosy buff. Hay's lilac to white with bright yellow in throat. 35c.
Numa Roumestan. 36". Intensely red. 15c.
Pacific. 36". Gigantic deep blue. A magnificent early iris. 25c.
Pale Moonlight. Very pale blue. 35c.
Persia. Bright blue blended with smoky blue, like a Persian rug. Fragrant, massive. 25c.
Picador. Variegata. Gold and red brown. 25c.
Pres. Pilkington. 40". S. vinaceous buff over old gold. F. soft violet, edged silvery brown. 15c.
Purissima. 44". The most perfect white. Gigantic flowers. 15c.
Querida. 42". Blended pastel tints, mauve to white. Fragrant. 15c.
Red Ember. Very striking bicolor. S. pink. F. velvety crimson. 25c.
Rialgar. 22". Deep buttercup yellow and bronze. Very showy. 20c.
Rosultra. 40". Early, bright rose. Fine garden effect. 20c.
Sacramento. A giant plicata like San Francisco but edged red purple. 25c.
Sandakan. Tan and purple bicolor. 20c.
San Francisco. 44". Finest, largest plicata. Lavender blue on white. Dykes Medal.
15c.
San Gabriel. 60". Pink lavender. Extra fine. Too early for east. 15c.
San Luis Rey. 38". Large red purple. 15c.
Santa Barbara. 40". Finest lavender blue. Very large, perfect form. 15c.
Sequoiah. 36". Reddish color. F. margined lighter. 20c.
Shasta. 40". Gigantic snow white. Perfect form. Early. 15c.
Sir Michael. 48". S. clear lavender blue; F. red purple suffused copper brown. One of the world's best iris. 25c.
Souv. de Mme. Gaudichau. Dark velvety blue purple. Fine form, early, and fragrant. 15c.
Tenaya. Dark red-purple. Very outstanding. 40c.
Thos. R. Bacon. Soft ivory yellow blended gray to violet in center of falls. Very attractive. 25c.
Valor. Blackish blue-violet bicolor. Large, rich, fine. 20c.
Wonder Child. Very large, deep pansy purple. Magnificent, profuse bloomer. Best dark iris. 30c.
Yves Lassailly. Very large white, suffused sky blue. 20c.
Yvonne Pellitier. Pallid blue-violet blending to light violet. 20c.
Iris Collections. No. 1. One each of Mauna Loa, Red Embers, Ningal, Canyon Mists, Cucamonga, Depute Nomblot, Happy Days, Los Angeles (or San Francisco), Purissima (or Shasta) and Pacific. Ten varieties, all labelled. List value \$2.45, for \$2.20.
No. 2. One each of Mme. Durand, Thos. R. Bacon, Sacramento, Blue Beard, Buechley Giant, Francheville, Desirable, Picador, Claridad and Attitash. Ten varieties value \$2.40 for \$2.15.
No. 3. One each of Valor, Pale Moonlight, Blue Velvet, Indian Chief, Mme. Cheri, Loudoun, Arcadia Blue, Golden Cataract, Santa Barbara and Blue Beard. This collection contains several fall bloomers. Ten varieties, value \$2.60 for \$2.35.
No. 4. One each Indian Chief, California Blue, Alta California, Querida, Pres. Pilkington, San Luis Rey and Purissima. Seven varieties, value \$1.25 for \$1.10.

No. 5. Includes collections Nos. 1, 2, 3 and 4. Thirty-seven varieties all different, labelled. List price \$8.75. Price of all four collections \$7.75.

We reserve the right to substitute equal or better sorts and values if we run out of any. **Remember.** Iris do not flower from recently planted rhizomes. You gain nothing by planting before the 1947 blooming season is thru. For best success we advise you to file your order, with remittance, early and ask for delivery when thru flowering. Delivery also thruout summer and fall.

Gladiolus

In order to avoid damage by thrips, Gladiolus should be planted early. In the north this means as soon as ground can be worked and there is no danger of freezing.

In California, southern Arizona to southern Texas and Florida, where winters are mild, they may be planted between November 15 to March 1. There is usually no difference in the time of blooming if planted between these dates.

Thrips are very small insects that suck the juices from the plant. They cause the flowers to wither or appear burned, and appear only after weather becomes warm.

To avoid the damage they do, four measures are effective: Plant early; plant clean, treated bulbs; keep them always moist by overhead sprinkling. Gladiolus that are sprinkled one-half hour every evening are likely to escape thrips damage.

The most effective method of getting rid of them if they appear in the garden is to dust with a powder, 5% D. D. T. and Sulphur 95%.

Treating bulbs. Mix 4 teaspoonsful of Lysol in one gallon of water. Soak the bulbs 6 hours in this solution. It may be used several times but not after standing over one week. This kills thrips and most disease infections. Do not treat bulbs bought from us. We treat before selling.

Plant 4" deep; small 3"; bulblets 2". Twice their diameter apart. One can plant two rows, staggered in a 4" wide furrow or closer in a single row. Rows about 20" apart. Alkaline soils produce poor Glads. Soil should be neutral to mildly acid. Leaf mould or peat added is useful. Domestic peat is often harmful because alkaline. Use no fresh manure, but well rotted manure is fine. Top mulch of leaf mould or imported peat is good.

Keep Glads growing with plenty of water and best culture for about two months after flowering. It is best to dig bulbs in the south, and necessary in the north.

Size and Prices. L. means "large," size 1 and 2, 1 $\frac{1}{4}$ " - 1 $\frac{1}{2}$ " (or larger) in diameter. M. is "medium" and includes No. 3 and 4 sizes, $\frac{3}{4}$ " - 1 $\frac{1}{4}$ " diam. S. means "small," under $\frac{3}{4}$ " diam. Large and medium bulbs give good long spikes. Small bulbs usually bloom in most varieties and when planted early, given good culture and plenty of water they usually make fairly long spikes. **Prices** are for one bulb as elsewhere in this catalog. A dozen, all of one sort, costs ten times the price of one unless otherwise stated. Six are sold at dozen rate. Don't forget **Sales Tax** in Calif.

Substitution. If you order early there is likely to be no substitution, but when out of a variety we send another as nearly like it as possible and of equal or greater value. If you do not approve this, request no substitution.

We are offering many of the newer and better varieties and dropping others. These new introductions are larger flowered, taller and improved in color. Many of them are really sensational. Space does not permit full descriptions. As prices range up to 35c each just add the adjectives "outstanding," "exquisitely beautiful," "best in its color class," etc.

Amberglow. Tall, amber yellow. 1" bulbs, 8c ea. 80c doz.

Barcarole (Palmer). Exquisite large, clear grenadine orange. L. 9c ea.

Big Top. Not only has the largest flowers and tallest spikes but is one of the most beautiful. Light pink with carmine feather. L. 25c ea. Per doz. \$2.75.

Bit O'Heaven. Fine orange. Excellent cut flower. 1" bulbs, 8c ea.

Black Opal. Very deep maroon red. Darkest and best. Tall exhibition spikes, many open. L. 12c ea. Per doz. \$1.25.

Blue Beauty. New, best blue. Fine color. L. 8c ea. 80c doz.

Capeheart. Light salmon-rose. One of our best cut flowers. Tall, early, extra fine. L. 15c ea. \$1.50 per doz.

Chamouny. Tall, deep cerise rose, bordered silver. A new color for Glads and most beautiful. 1" bulbs, 20c ea.

Debonaire. La France pink. L. 7c ea. 70c doz.

Ethel Cave Cole. The best pink Glad. Tall, large flowered and early. L. 20c ea. Per doz. \$2.25.

Jacinth. Early orange pink, Picardy seedling. 1" bulbs, 8c ea.

Jeanie. Clear rose pink. L. 15c.

Margaret Beaton. Large white, scarlet blotch in throat. Popular cut flower. L. 8c ea. 80c doz.

Pelegrina. Very early, deep violet blue. L. 5c ea. 50c doz.

Purple Supreme. Newest and best purple. Very tall and many flowers open. Fine exhibition type. L. 40c ea. \$4.00 per doz.

Red Charm. Finest new red. Tall, many open. L. 25c ea. \$2.50 per doz.

Rosa Van Lima. Light rose. Choice commercial and exhibition type. L. 9c ea.

Shirley Temple. Immense ruffled cream. L. 8c ea. 80c doz.

Snow Princess. Best new white at the price. L. 10c ea.

Stoplight. Brilliant red flowers on an impressive spike. L. 25c ea. \$2.50 per doz.

The Orchid. Individual flowers resemble an orchid in color and shape; and make lovely corsages. Do not make large bulbs or plants. 6c ea. 50c per doz.

Wanda. A new and very lovely cream. 15c ea. \$1.25 doz.

White Gold. Very popular, large cream with a yellow throat. L. 35c ea. Per doz. \$3.50.

Assorted varieties. Not a "balanced mixture." 1" to over 1½". 6c ea. 50c doz.

Other Bulbs of Iris Family

Marica gracillis. Walking Iris or Apostle Plant. The fugitive 2" flowers, white and blue with yellow and brown markings in center, are lovely. The flowers are followed by a small plant at end of scape. These become heavy and bend over to ground and take root, thus walking away from mother plant. **Culture:** Give nearly full shade, plenty water, never drying out. Tender tropical but grown in pots in north. 50c ea.

Tigridia pavonia hybrids. Tiger Flower or Shell Flower. Large, very showy flowers of yellow, orange to rose and red. Plant as soon as weather is settled and frost danger is past, in good soil, 3" deep, 5" apart. We give a little shade as our sun is very hot. Along coast or in the north it may not be necessary. Water well when rains fail. They can be grown in a greenhouse. In the north, dig like Glads and store dry. Bulbs are higher now but we offer a special low price. Assorted colors, 4 bulbs for 35c. Per doz. \$1.00.

LILY FAMILY—Liliaceae

The type species is *Lilium*, or true Lily. Many call Crinums, Callas, Cannas, or any bulbs "Lilies," but this is an error.

Lilium regale. Large fragrant, white flowers, tinted pink with cream throat. This is one of the hardiest and is easy to grow. It increases in size and number every year and becomes permanently established in the garden. It belongs in the perennial border along with Daylilies, Crinums, Shrubs, etc. They prefer mildly acid soil and the addition of leaf mould and sand to your soil will give improved results. Mulch the ground or plant among shrubs or other plants that shade the soil surface but allow the plant to rise into the sunlight. Keep their feet cool and their heads warm. Large bulbs, 35c ea.

Gloriosa. Climbing Lily. The flowers resemble true lilies but surpass most of them in their gorgeous beauty and high coloring. They propagate by tubers instead of bulbs. The stem is branching and heavy and must be supported.

Culture. They must have sandy soil with leaf mould and peat added, acid (about pH 6.5), full sun or slight shade, plenty of water, perfect drainage. We usually plant before March 1, but sometimes as late as May. They need a long season. Plant 4" deep.

Horizontal position. In the north they may be started early in pots and shifted. Do not break earth ball when shifting.

Gloriosa rothschildiana. It deserves the name **Glory Lily**. Very vivid colors, red with yellow markings, turning later to deep red and then deep rose. 4 to 6 ft. tall. Large tubers at \$1.00, \$1.50 and \$2.00.

OXALIS FAMILY—Oxalidaceae

No bulbs have increased more rapidly in public favor in recent years. Plants and flowers are variable in form and color and are most attractive and dainty. **Culture.** Plant in full sun exposure in any good soil. All make lovely pot plants and should be grown freely in the garden. The flowers open only in the sunlight.

See the Fall Catalog for the winter growing types.

Oxalis crassipes. Flowers bright rose. Evergreen and everblooming. Increases by tubers and can be moved at any time. Plant at once. Large tubers, 25c ea. 6 for \$1.00.

THE CALLA LILY FAMILY—Araceae

This family contains the so-called Calla Lilies or Zantedeschias, Fancy Leaf Caladiums and the genera Sauromatum, Amorphophallus and others listed in our fall catalogs.

Culture. **Baby Callas** are the only white Callas that can be moved now. Grow them in slight shade to full sun in pots or garden. The soil should be half sandy loam, half fine leaf mould. **Baby Calla** is evergreen and should never be dried off.

The **Colored Callas**, Yellow, Pink and Spotted Leaf do exceptionally well in pots. They start more easily now than in late Dec. Give them a 5" or 6" pot, soil like Baby. Cover bulb 1". Keep only moist, not wet, until well up. Manure water is a good fertilizer, when growing well. Give them a warm, sunny window. If too sunny a lace curtain may be enough shade. They usually bloom quite early, only a few weeks after planting. They are fine in the garden. Here we plant Feb. 15 to Apr. 1, in a lath house or other half shade. Dig bulbs and keep them dry as soon as tops yellow. See other culture notes with listings:

Zantedeschia aethiopica var. Baby Calla. This is the smallest and the whitest Calla. Small enough for corsage. We send small bulbs as the large bulbs make larger flowers, approaching in size those of Godfrey. For tiny 1" flowers replant your small bulbs. 20c ea. 3 for 50c. \$1.75 per doz.

Z. albo-maculata. **Spotted Leaf Calla.** White flower. The spear shaped spotted leaves are most decorative even without flowers. 35c ea. Jumbo 50c ea.

Z. elliotiana. **Yellow Calla.** The most desirable colored Calla. The lovely deep yellow flowers, with the spotted foliage, make a perfect, easily grown and low priced pot plant. Ours are extra fine, high crowned bulbs. 20c and 35c ea.

Z. rehamnni. **Pink Calla.** This is the dark pink var. Large bulbs 50c ea.

Z. melanoleuca. **Purple Throated Calla.** Light yellow, purple throat. S. 75c.

Calla Seed. Spotted Leaf, Pink, Purple Throated or mixed. 10 seeds for 25c. $\frac{1}{2}$ " deep, moist.

Fancy Leaf Caladiums. Most gorgeous of all foliage plants. The leaves are as colorful as any flowers. Perfect as pot plants. **Culture.** Soil, rich sandy loam and humus, equal parts. Half of humus should be well rotted manure, dairy preferred. If manure not available use fine sifted leaf mould. Soil should be slightly acid, about pH 6.5. If not, add peat. A tablespoonful of bone meal to each pot is useful. Caladiums must have warm conditions at all times. The minimum temperature for storing is 60°, and 70° is better. Don't try to start them when temp. is under 70° and 85° is better. Good growth will be made at 80° or 90° with minimum of 70°. They must have about half shade. Give only slight moisture at first or the best bulbs may rot. They are easy and sure if you do it right.

Starting. It is better to start the tubers before potting. Lay the tubers on top of damp sphagnum moss in a box or pot and as roots are made from top of tuber, cover them 1" with sphagnum. Keep only slightly moist.

In the garden you can plant bulbs or shift from pots only after summer warmth arrives.

Varieties. **Candidum**, snow white leaves, green ribs. **Reconcavo**, rose center, carmine ribs on dark green. **Mrs. W. B. Haldeman**, transparent rose leaf, pea green veins with narrow dark green border. **Lord Derby**, beautiful rose leaf with dark green veins and ribs. **D. M. Cook**, rumpled leaf, plum center, spotted deep red.

Large bulbs, $1\frac{1}{2}$ " - 2" diam., 45c ea. \$4.75 doz. One bulb of each 5 sorts, labelled, \$2.10. These large bulbs start earlier, make larger plants and are more sure to succeed than the small bulbs sold at lower prices.

Please Note. Our Caladiums, Tub. Begonias and Gloxinias are grown for us by the best American growers. They are famous for the high quality of their bulbs. We guarantee them to reach you in good condition. If you find them otherwise return the faulty bulbs at once. Do not plant them first and then return. Order early as we usually sell out early on some sorts. Do not hurry any of these bulbs, nor expect them to start too early. Give very slight moisture at first. A little overwatering will cause them to rot.

BEGONIA FAMILY—*Begoniaceae*

Tuberous Rooted Begonias. Wonderfully attractive bulbous plants for pots or a cool moist spot in the garden. They are nice around a Camellia if not too shaded. Order early as the bulbs are not plentiful and the demand will be heavy.

Culture. The best soil is half humus and half fine sand or sandy loam. For humus, use $\frac{2}{3}$ peat or leaf mould and $\frac{1}{3}$ well rotted cow manure made fine by rubbing thru a screen. Acid soil is required. A little peat may be used to render the soil more acid. Improve this soil if convenient by adding charcoal or a small tablespoonful of soot. Give manure water and soot water (handful to $2\frac{1}{2}$ gal.) during growth. Sprinkle daily when growing well but there must not be too much moisture around bulbs before they sprout or they may rot. It is better to start them as advised for Caladiums. Another good way is to pot them only after sprouts start. In December they may be gradually dried off for a rest, if they have ceased blooming. Begonias need a cool room, not hot like Caladiums, and about half shade. Outdoors, a lath house gives about correct sun exposure. They do not bloom well in full shade and full, hot sun exposure will burn them.

Please note that we specify the diameter of our bulbs. When you compare prices, you must also compare sizes. These larger bulbs are more easy to start and to grow. They bloom earlier and make larger plants, more bloom. I am listing a larger size this year than last.

Giant Double Camellia Flowered. The most popular type. The flowers are like large, perfect Camellia blossoms. We offer 17 colors: White, Blush, Pink, Rose, Crimson Rose, American Beauty, Yellow, Apricot, Salmon, Light Salmon, Dark Salmon, Orange, Flame, Scarlet, Red, Cardinal Red, Dark Red. Size, $1\frac{1}{2}$ " - 2". Price 35c ea. \$3.50 per doz. The 17 colors, \$5.50.

Giant Double Carnation Flowered. They resemble huge carnation flowers, but are even more perfect. Available in 14 colors: White, Blush, Pink, Rose, Crimson Rose, Yellow, Apricot, Salmon, Dark Salmon, Red Salmon, Orange, Scarlet, Red, Dark Red. Size, $1\frac{1}{2}$ " - 2". Price 35c ea., per doz. \$3.50, 14 colors for \$4.50.

Giant Double Picotee. The exquisite double flowers are edged white like a Picotee Tulip. Five colors: Pink, Rose, Salmon, Apricot, Red. Size, $1\frac{1}{2}$ " - 2". 40c ea. One of each, 5 bulbs, \$1.75.

Lloydii or Hanging Basket Begonias. The stems hang down over the sides of pot. They are fine in either pots or hanging baskets. Nine colors: Red, Scarlet, Rose, Pink, Salmon, Apricot, Yellow, Orange, White. Size, $1\frac{1}{2}$ " - 2". 40c ea. The 9 colors for \$3.25.

Rosebud Type Begonias. The flowers are perfect rose-bud shapes. Very rare and lovely. We have never been able to get enough to fill orders. These are in mixed colors but no two are exactly alike. To get a representative collection of many colors you should order a dozen or more. $1\frac{1}{2}$ " - 2". 40c ea. or \$4.00 per doz. 25 bulbs for \$7.50.

Complete Collection No. 1. All varieties listed, including only one Rosebud, 46 bulbs. Price \$14.50.

Collection No. 2. All varieties, including 12 Rosebud. 57 bulbs, different, \$17.50.

Collection No. 3. All var. as in Coll. No. 1, except we include 25 Rosebud instead of one. In this you should get a good range of colors in the Rosebud and as these are grown from seed, every one will be at least slightly different. Price, 71 bulbs, all different, \$21.00. This collection #3 will give you a fine bed of Tub. Begonias, outstanding in your neighborhood.

GLOXINIAS—Gesneriaceae

Gloxinias rank with Fancy Leaf Caladiums and Tuberous Begonias as showy pot plants, for their foliage as well as for their large and gorgeously colored flowers.

Culture. Plant in about a 6" pot using soil as described for Begonias. Barely cover bulbs. Handle about the same as for Begonias including the feeding, watering and start as advised for Caladiums. In watering do not let any moisture touch leaves. They require part shade and protection from winds if outside. When flowering ceases and foliage has fully matured gradually lessen the water given. When the foliage has all ripened off, the pots may be stored in a room at about 45° but give just enough water to prevent tubers from shriveling. When they show signs of growth they may be brought out and started.

For two years we have had to refund for most of our Gloxinia orders because "Sold out." This year we have a fairly good supply but be safe and order early.

We offer 1 $\frac{1}{4}$ " - 1 $\frac{1}{2}$ " bulbs in the following varieties: **Blanche de Meru**, rose, white throat; **Emperor Frederick**, scarlet, white border; **Emperor William**, violet, white border; **Etoile de Feu**, scarlet; **Mont Blanc**, pure white; **Prince Albert**, frilled, dark violet; **Princess Elizabeth**, blue, white throat; **Roi des Rouges**, frilled, dark crimson; **Tigrinia**, from light rose to dark lavender; **Violacea**, soft violet; **Brown's Red**; **Othello**, deep purple. Price 50c ea. The complete collection, 12 var., all labelled, for \$5.50.

THE ORCHID FAMILY—Orchidaceae

The first Epiphytic Orchid was imported and flowered in America only a little over 100 years ago, and in England only 50 years before that. Ten years ago very few amateurs attempted to grow Orchids. At that time we had only 2 or 3 clumps of Cymbidiums and could not get flowers from them for several years. We learned the hard way. Now we are doing our part in helping others to acquire the knowledge in an easier way and many of our customers report success.

Orchids are the most beautiful of all flowers. We do not need to except Lilies, Roses, Amaryllis, Iris,—any others. The number of species and varieties that an amateur can grow is rapidly becoming greater and limiting factors are only availability of plants and the knowledge of their culture requirements. Many will buy plants indiscriminately,—because cheap and because they do not have either the equipment or the knowledge necessary, the plants will die. Too often dealers give one set of culture directions for widely different types.

We offer no plants that we have not grown and flowered successfully. We have also studied carefully the methods of other growers. We do not guarantee success for you but we can advise you in a way that will enable you to grow the Orchids we offer successfully and in many cases to flower them in one year or less.

It is a common opinion that Orchids are very hard to grow and that they are most tender, difficult plants. On the contrary, in nature they grow under conditions that you would consider most unfavorable. They grow where a violet, a rose or even a zinnia could not grow. Their requirements are not abstruse, but simple. Meet these requirements and you will succeed. They deserve to be called "easy to grow" plants. They are easy, if you conform to their simple requirements.

HOW TO GROW ORCHIDS

We may classify Orchids as either terrestrial or epiphytic. Terrestrial Orchids grow

in the soil. Epiphytic Orchids grow upon other plants but are not parasitic upon them. They frequently grow even on stones.

All Terrestrial Orchids require an acid soil. The best soil therefore is a very sandy loam in which is incorporated about an equal part of leaf mould and/or peat. Many of them grow in nature in pure leaf mould or wood mould. Many Epiphytic Orchids are grown in pots in a semi-terrestrial way but using for soil peat, leaf mould sphagnum or osmundine or a combination of them.

The Hardy Orchid, *Bletilla Hyacintha*, can be grown in northern climates as it is dormant in winter and may be planted 4" deep and given a heavy winter mulch of leaves, straw and brush to prevent freezing of the ground to the depth of the bulbs. But it might not succeed too well where the winters are 7 months long and it has to complete its annual growth in a season of 5 months, tho they have been reported as blooming outside when snow was still on the ground. They do exceptionally well in the south and middle south.

Give them half shade, in a rich sandy loam to which has been added leaf mould and peat as already mentioned. This mixture of humus and sandy loam should be 10" in depth and extend 8" or more on all sides. They will also do well in heavier soils if some sand and humus be added. They are said to grow in pots but I do not advise this. The bulbs should be potted when received if they cannot be planted outside, but shift to the garden in a permanent place when warm.

Epidendrums of the Euepidendrum group grow very well in the outside garden where winter temperatures are not likely to be lower than about 26° and that for only a short time. In frostless regions they are always blooming, every month of the year. Give them a sandy loam soil with leaf mould and peat. They like a warm situation with nearly full sun exposure and a liberal amount of water. They do very well in pots and can be depended on to flower within a year. In pots, use $\frac{1}{3}$ to $\frac{1}{2}$ sand or sandy loam and the balance screened leaf mould and peat. In their habitat these tall plants grow among grasses which support them in an upright position. In pots, support the plants with a stake.

Cymbidiums are terrestrial Orchids from India and Burma. They grow in the moist atmosphere of mountain sides and foothills where there is much rain but perfect drainage. The culture is easy, the requirements simple but must be met. Give them 50% shade. The shade of a lath house, lath spaced 1" apart, is right where the sun is bright. In foggy climates, a little less shade may be better. They do well in the some proportion of filtered sunlight among trees or in house or greenhouse.

We prepare the soil, which is sandy loam, perfectly drained and under a lath house, by excavating a furrow 10" deep and about 12" or more wide. The soil is laid out on the two sides. This trench is then filled with screened peat. Sometimes we use screened leaf mould and peat in equal proportions. Pure leaf mould, preferably from rotted oak leaves, will do very well. In all cases the peat mentioned in this article should be acid in reaction, pH 5 or lower. Some American peat is higher, even alkaline, and must not be used. Do not use poultry peat but the best imported horticultural peat will always be safe.

Tramp the peat in the trench until will compressed and add more until the trench is full of well compressed peat. Then throw part of the dirt on top and shovel it over until well mixed. The bed can then be smoothed with a rake but leaving the future position of plants on a slightly rounded elevation rather than depressed. It is better to water first with a permanently installed sprinkler until moist to the full depth. Allow it to drain for several days, then you are ready to plant.

If the plants have come from a distance, it is likely that the roots are dead or broken and hence worthless. But if there are living roots, handle carefully as they are most brittle and tender. If broken or bruised, they surely die. If there are no roots they will be replaced in one or two months. To encourage root growth we usually surround the base of the plant with pure moist peat, covered with only a little soil to hold it down. The pseudo-bulbs must not be covered. Insert them to a depth of only

about one inch and at least $\frac{2}{3}$ of the bulb exposed. Sprinkle the foliage lightly every day until roots form but not enough to make the soil soggy. Such a condition is likely to cause the pseudo-bulb to rot and that is fatal.

In our arid climate we need to give a good sprinkling to well established plants once or twice a week in the hot dry summers. The plants should bloom in two years after planting if the culture has been good. Do not expect flowers earlier tho in rare cases they may bloom within one year or even in a few months.

In pots, give them a 6" or 8" size which will provide room for two years growth. Use a similar soil or with more peat or leaf mould. One can also use part sphagnum or osmundine. Lumps of charcoal added to potting soil is good practice.

In either pots or in the garden, *Cymbidiums* receive a benefit from animal manures. Fertilize only well established, thriflily growing plants. Weak manure water is better for potted plants, used about once a month. In the outside garden give several light mulches of manure per year, and it need not be rotted. Use lightly, don't completely cover ground and it is probably better if none touches the pseudo-bulb.

Altho *Cymbidiums* may be divided and moved at any time of year, the best time is the spring soon after they are thru flowering. That will be about April. Growers will not dig clumps and divide in order to sell during the winter blooming period as they lose the flowers when they do this. Very often a clump will produce flowers that sell wholesale for a value equal to that of the entire clump. Root action is more rapid too in early spring. The plants are tender tropicals and the danger of freezing in transit when shipped north is great in winter. There are thus many advantages to both buyer and seller if shipments are made after April 1. But place your orders with remittance in advance so that plants may be reserved for you. We continue shipping thruout the summer and fall.

Altho the *Cypripediums*, or Lady Slippers of the temperate zones are very difficult to grow in gardens, the tropical *Cypripediums* are as easy as *Cymbidiums*. They are slightly less frost resistant but will not be harmed by light frosts. Growth will be slowed down by cold weather and in a house or greenhouse, growth and winter bloom will continue. They may be grown in the outside garden in a lath house with *Cymbidiums* in the same soil. But place them well inside the house where it will be a little cooler and shadier. They may be fertilized the same as *Cymbidiums*.

Where winter temperatures go lower than about 28° in winter, they should be grown in pots. In the house or greenhouse, there will be more winter growth but outside planting where advisable is more favorable for summer growth and should be practiced in frostless localities. The most favorable winter temperatures are 55° at night and 65° in day time. In the summer, grow in a cool place. Like all Orchids they do not like stuffy, close atmosphere. Give good ventilation.

In pots, the soil should be equal parts of screened leaf mould, peat and chopped sphagnum. Commercial growers use osmundine. See the potting directions.

Cypripediums grow in all seasons and should never become dry. Overwatering is bad and likely to cause rot at base of leaves. A moist but not suggy condition is ideal. Do not plant too deep. The soil surface should be only slightly above base of leaves.

Laelias, natives of Mexico to south Brazil, are close relatives of *Cattleyas* but are able to withstand tough conditions and are much easier to grow. Altho they are epiphytic, I grew them for years in a soil of peat and loam with some sphagnum. But this is not the best medium and I sometimes lost plants.

They must be grown in pots. A good medium is equal parts of screened peat, leaf mould and chopped sphagnum. Osmundine is equally good. Do not set the pots on the ground as slugs will enter pots and feed on the roots.

Laelias will survive slight frosts but it is better to protect them. The best winter temperature is about 50° . They should be as cool as possible in summer. Remove the pots from the house or greenhouse in summer and hang them under trees or set pots on a bench. In the summer give the plants a light spraying every evening. Do not

water too heavily at any time. As many Orchids are killed by overwatering as by underwatering. Epiphytic Orchids especially need light frequent watering which almost dries away before more is given. In nature, Laelias thrive where no rain falls for months. Their roots are exposed to the air, uncovered by soil. But there is a heavy dew every night and this favors vigorous growth and flowering.

Odontoglossum grande is from Guatemala. Odontoglossums grow in high altitudes and must be cool. They grow in the winter and rest in summer. They should receive a little sunlight in winter. In the summer, remove the pots to the coolest place available. We consider our best place to be the shade of our avocado trees, trimmed high and therefore much light enters and air circulation is not impeded. One should sprinkle the ground around them freely during hot weather. The necessary factor is to keep Odontoglossums cool in summer.

Pot them in the same medium and in the same way as Laelias with pseudo-bulbs entirely above surface.

Potting directions for all Orchids. Perfect drainage must be provided for all Orchids in pots. The purpose is not merely to drain away water but also to permit air to penetrate around their roots. This air bath is very necessary. Cover the pot hole with a piece of broken pot, concave side down. Above that fill a third of the pot with small broken pieces of pot or gravel.

The medium for epiphytic Orchids seldom contains soil. One part each of screened peat, fine leaf mould and chopped sphagnum is excellent for the epiphytes. This is good also for the terrestrials, Epidendrums and Cymbidiums if another equal part of very sandy loam be added. Most commercial growers use Osmundine for potting the epiphytes, such as Laelias and Odontoglossums. It is a good medium for tropical Cypripediums some of which are purely epiphytic, while others grow well in soil.

If granular charcoal be added to the potting medium for Orchids it will help to keep the medium sweet. It also helps to improve drainage and aeration of roots. The Orchid roots find them and are benefitted but the charcoal is not a prime essential.

If the peat-leaf mould-sphagnum mixture is used it must be pressed down well and made as firm as possible. We moisten it first and allow it to drain well before potting. Osmundine must be pressed down and made firm in the pots and around plants with a blunt stick.

Recently potted Orchids must not be overwatered. Often it is enough to spray the foliage lightly until it is evident that there is root action and growth.

We expect to ship epiphytic Orchids in light weight, waxed paper pots,—if we can get the pots. Thus you need only to provide clay pots of proper size. You should also have material on hand for the potting medium when you need to repot or shift to a larger pot. Buy this locally if possible as postage and packing adds much to cost. We can usually furnish Osmundine in a 1 lb., gross weight package for \$1.00 postpaid and fine sphagnum moss for \$4.00 per bale, weighing about 10 lbs., by express f. o. b. La Verne.

Additional Information may be found in White's American Orchid Culture and Bailey's Cyclopedie of Horticulture offered for sale on page 4. There will be an Orchid article in The Flower Grower in March or April. I suggest that you subscribe for this excellent magazine. If you will send me \$2.50 (No. or S. America) for a one year's subscription, I will forward it for you.

Please Note. We deliver Bletilla in the winter. We start to send the tropical Orchids about April 1. You should order early with remittance, so that we can reserve plants for you.

Bletilla hyacintha has 8 or more dainty orchids, 1" wide on 12" stem. True rose purple orchid color. 75c ea.

B. hyacintha alba. Pure white form. 85c.

Epidendrum obrienianum has a large terminal cluster of brilliant red orchids, each

about $1\frac{1}{4}$ " wide. It blooms continually in warm weather and makes a vivid display. The plant makes a cluster of 4 ft. stems that need support. They are propagated by means of branches having aerial roots. 75c.

Cymbidiums are probably used more than other orchids for corsage flowers. The 4" to 6" wide flowers are born by a stem often 4 ft. long, from 10 to 30 or more on a stem. The flower spike remains in perfect condition for 8 to 12 weeks and when cut the flowers have unsurpassed lasting qualities. They may be used many times in a corsage if kept in a refrigerator between times.

The flowers are of typical orchid form and in a wide range of colors. It is impossible to describe accurately the color of hybrid Cymbidiums as all the seedlings raised from a cross are given one name and colors vary in the different plants. Descriptions therefore are only approximate and not always even that.

The prices in the following list are for one single plant, a psuedo-bulb and attached foliage. They should flower in two years with correct culture.

Butterfly. Yellow to buff with red lip. \$15.00.

Curlew. Variable. Silvery pink to deep pink, rose, yellow and bronze with dark lip. \$16.50.

Doreen. Orange, tinted green. The yellow lip is purple spotted. \$16.00.

Giganteum. Large plant with lush foliage. The smaller flowers are a vivid brown-red, very early and desirable. \$14.00.

Hookerianum. The green Cymbidium. Large, light green flower with straw colored lip, spotted crimson purple. \$15.00.

Insigne. White, flushed pink to deep rose pink. Plants are small. Our plants are small, young plants. \$15.00.

Moira. Shades of cream to yellow. Crimson marking on lip. \$15.00.

Veitchii. Good grower and multiplier. Large, pretty, slightly fragrant flowers are white, tinted yellow. This Eburneum x Lowianum hybrid is often unappreciated because there are usually but 6 to 9 flowers on a stem. But this is balanced by the fact that a plant gives 3 or 4 times as many stems. \$15.00.

Winter Cheer. Cream with pink dots. Red dot on lip. \$15.00.

Zebra. Lovely pink orchids on a robust plant. \$16.50.

Cypripedium insigne. This is an easy species to grow and one of the hardiest. The flowers are variable as there are many wild varieties. Small plants that should flower in one year, \$7.50 to \$10.00.

C. aurobe. A fine hybrid whose bloom I have not seen. These should be even more sure to flower in one year. Price \$15.00.

Odontoglossum grande. A strikingly beautiful orchid. The large flowers are bright yellow, barred chestnut brown, nearly 5" wide. Fall to winter blooming. \$10.00.

Laelia anceps. There are 2 to 6 very beautiful flowers on a stem. Flowers are 3" or 4" wide, quite variable in color but usually rose and crimson purple. Winter blooming. The sizes offered should flower in one year. \$4.00, \$5.50 and \$8.00 ea.

L. grandiflora. Said to be the finest Laelia. One or two large flowers on a spike. Petals and sepals are rose lilac. The white lip is marked mauve purple. Give only occasional light syringing in winter, otherwise dry. Blooms May to June. Small plants, likely to flower in one year, \$4.00. Larger, \$6.00. Very large plants that should flower well in May or June, 1947, \$10.00 ea.

Be sure to send 10c extra for **insurance** and 15c more for **special handling** and delivery will be more prompt and safer.

Still better, tell us to ship them by express, f. o. b. La Verne. We can use heavier carton and packing and the epiphytic Orchids in pots are less likely to be dislodged from the pots.

RANUNCULUS AND ANEMONES—Ranunculaceae

Ranunculus range red, pink, yellow to white. Very double flowers.

Anemones are red, pink, white but blue predominate. Usually single.

Culture. Plant outside in south or pot in north from Sept. to Mar. Sandy loam soil with leaf mould preferred. Start at moderate temperature, cool, not cold or hot. Give only slight moisture until plants are up. We offer only super-jumbo bulbs, the largest size 1" or over in diam. They cost more but you get more and better flowers for the same money than you get from small cheap bulbs.

Prices reduced. We wish to close out a few bulbs left. They are top quality bulbs. You may have either Ranunculus or Anemones or combined for \$1.25 per doz. 50 for \$5.00. 100 for \$10.00.

Miscellaneous

Shasta Daisy. **Esther Reed.** The favorite variety and fully double. They must be moved by Mar. 1. If too cold to plant outside, put them at once and shift to garden when warm. Single divisions 25c. 3 for 60c. \$2.25 per doz.

Royal Robe Violet. Latest, best, deepest violet. Long stems. Grow like any other violet, in pots or outside, cool half shade for hot climates. 30c ea. 4 for \$1.00.

Clivia seed. Plant on top of soil composed of sandy loam and leaf mould in full shade. If covered by pane of glass it will help to preserve constant moisture in soil and air humidity necessary to germination. 25c ea. 3 for 60c. \$2.00 per doz.

BILLBERGIAS—Bromeliaceae

Billbergias have a rich, tropical appearance with the showiest inflorescence. Numerous vividly colored red bracts on drooping racemes topped by flowers that are usually a shade of blue comprise the floral display. The stiff erect foliage forms a cup and is ornamental and often colorful.

Culture. They are tender tropicals but do well in mild climates like that of So. Calif., in the garden. Easy in pots. Half shade. Too much shade prevents the coloring of those varieties that have variegated foliage. The cups should hold a drink while growing,—in summer. Do not overwater when starting or in the winter as Billbergias make rapid growth only in hot weather. Being Epiphytes, their natural soil is pure leaf mould or rotted wood mould. Peat and sphagnum are good substitutes. Add a little sand for greater substance. Neither overwater or let them become dry.

Billbergia nutans. Mentioned first as they are easiest to grow, one of the most useful and we can offer very special low prices this spring. Beautiful, vivid inflorescence. Dec. to Feb. 50c ea., 3 for \$1.00. Per doz. \$2.50. Try these in the fronds of palm trees. Budded plants in Jan. to Feb., \$1.00 ea.

B. corina. Very ornamental foliage, barred with grey on back and vivid inflorescence. Rare. \$4.00 ea.

B. distachia. Foliage is ornamental, reddish green spotted grey. Attractive, inflorescence. Special, 50c ea.

B. rubro-cyanea. Has colorful foliage but ours were shade grown and do not show the red, green and white markings. To bring the colors out give the plants all the sun they will stand, short of burning. Special price, \$1.25 ea.

B. speciosa, exceptionally vivid inflorescence. Ornamental leaves, grey green on back. \$2.50 ea.

B. thrysiflora. Bright scarlet flower bracts, blue purple flowers in summer. \$1.50.

B. zebrina. Very ornamental leaves, grey bars on back. \$2.50.